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THE UNIVERSITY OF ALBERTA

A DESCRIPTIVE-ANALYTIC STUDY OF DIRECTIVE-
PERMISSIVE VARIATION IN THE LEADER BEHAVIOR
OF ELEMENTARY SCHOOL PRINCIPALS

BY

VINCENT DAVID MCNAMARA

A THESIS

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FACULTY OF GRADUATE STUDIES

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "A Descriptive-Analytic Study of Directive-Permissive Variation in the Leader Behavior of Elementary School Principals" submitted by Vincent David McNamara in partial fulfillment of the requirements for the degree of Master of Education.

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ABSTRACT

Fiedler's contingency model of leadership effectiveness was applied to the analysis of the leader behavior of elementary school principals and of the relationship of this behavior to school effectiveness. The model is an outcome of social psychological research into the effectiveness of leaders of typical workaday task groups, ranging from sporting teams and airforce crews to church groups and company boards of directors. Fiedler's model has a number of distinctive theoretical and methodological features which make it particularly useful for research into educational administration:

- (1) It relates leader behavior to a stable personality trait of the leader;
- (2) It substitutes for the notion of a direct relationship between leader behavior and group effectiveness the concept of contingent variables (situational factors) moderating this relationship;
- (3) The model was empirically developed and progressively modified on the basis of research evidence;
- (4) The variables constituting the model are measured by extremely simple and economical yet powerful instruments;

(5) It has been developed from, and applies to, both experimental laboratory groups and real-life task groups.

When the model and instruments were applied to the study of elementary school leadership, the results were statistically significant in part only. In spite of this, the cumulative weight of the evidence collected tends to validate the model for schools. However, many questions concerning the general application of the model to schools remain open, and invite further research.

The leader personality measure used was the Least Preferred Co-worker (LPC) instrument. The interpretation of scores on this instrument as an index of directiveness was validated for elementary school principals.

The major contingent variable, the influence of the principal over his staff, was measured by the Group Atmosphere (GA) instrument. This variable was found to be a powerful moderator of leader behavior-effectiveness relationships. It appears to be a highly significant factor in moderating reactions to leader behavior, and its implications for school leadership merit further investigation.

Two other contingent variables, task structure and leader position power, were not measured. Perhaps because elementary schools were assumed to be low on both these variables, the correlations observed between principal

leader behavior and school effectiveness were the exact reverse of those predicted. It was found that among those principals whose leadership was accepted by their staffs, it was the more directive principals whose schools tended to be rated more effective, while for those who were not so well accepted, principal permissiveness correlated with school effectiveness.

The study attempted also to relate staff commitment to the contingency model. While the results failed to support the hypothesis that commitment is a crucial contingent variable, they did provide some indications concerning possible relationships between staff commitment and principal leadership effectiveness. There is some indication that the effectiveness of directive supervision is contingent on the accuracy of the principal's perceptions of staff commitment. This possibility also merits further investigation.

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CHAPTER I

THE PROBLEM

I. PURPOSE

This volume is the report of a descriptive-analytic study of directive-permissive variation in the supervisory behavior of elementary school principals. It was proposed to study this variation by trying out in schools the Esteem for the Least Preferred Co-worker (LPC) instrument so as to identify relationships between the personality trait measured and selected aspects of principal-staff interaction. The obtained measure of directive-permissive variation in leader behavior was used to analyse the conditions under which the principal's supervisory style interacts with staff attitudes in relation to effectiveness.

II. BACKGROUND TO THE PROBLEM

Much contemporary writing in educational administration emphasizes the functional importance of supervision as a major dimension of the role of the principal. Effective supervision is expected to co-ordinate teacher activities with respect to school goals, so that the instructional program benefits from the cumulative efforts of teacher co-workers, rather than suffers from the competing efforts of teacher individualists. At the same time, the principal-supervisor is expected to

foster the optimum professional growth of each teacher, so that each will have more to contribute to the attainment of school goals. Some principals perceive these as conflicting expectations, and have difficulty in reconciling demands for co-ordination with the needs of teachers for professional growth, particularly where teacher autonomy is regarded as an essential condition for professional growth.

Of all school supervisors, only the principal is located on the spot, in daily contact with the same teachers, and motivated by an immediate interest in their activities at all levels and in all subjects. The principal is therefore under considerable and constant pressure to develop a supervisory style that functions for maximum effectiveness with least stress.

Subject to conflicting superordinate and subordinate pressures on his supervisory behavior, the principal finds the ambiguity of the situation little reduced by empirical evidence as to how best he might supervise. Traditionally, in most occupations, the "boss" has been expected to get results by directing. If the school principal is to be the director of classroom teaching, he might be expected to make frequent visits to classrooms, to interview his teachers frequently, to advise them how to teach, and at times to demonstrate effective teaching.

Is the principal most effective when, from his position of greater authority, he directs the activities of his teachers? Is he most effective when, as required by some systems, he spends a large proportion of his time in the classrooms of his teachers, observing, assessing, demonstrating, giving teachers direct guidance as to how they might improve? Are there other more subtle, less direct means to co-ordinate teacher efforts and stimulate professional activities and growth?

Empirical evidence on these issues would help in solving important problems of school system organization such as the question of whether principals should be advised or required to visit classrooms in accordance with a set schedule. Perhaps the degree of supervision required and practicable varies in relation to the needs and attitudes of teachers, and a principal might best be directive with one teacher, permissive with another. Is a leader capable of varying his supervisory style, adjusting it to the needs of subordinates? Ultimately, answers to such questions would provide a guideline to more productive supervision and thereby to more effective education. If informed supervision succeeds in enhancing the professional quality and status of the teacher, then research knowledge about supervisory behavior should be a matter of great concern to all teachers.

What follows is the report of an attempt to obtain

evidence concerning some effects of alternative styles of school leadership.

III. THE PROBLEM AND SUB-PROBLEMS

The Problem

The purpose of the study was to apply to research into school leadership a personality measure which research in social psychology has demonstrated to have high validity and reliability in measuring a trait of proven significance in predicting effectiveness of leaders in small-group situations in a wide range of non-school activities. The try-out was to provide an opportunity to investigate the relationships between manifestation of the trait by principals, and -- principal supervisory behavior, principal-staff interaction, teacher task-orientation, teacher principal-orientation, teacher satisfaction, and school effectiveness.

The Sub-Problems

- (1) To what extent is the personality trait measured by Least Preferred Co-worker (LPC) scores related to the supervisory behavior of elementary school principals? How might the trait measured by LPC scores be described in terms of its manifestation in level of permissiveness of the principal's control

style as perceived by his teachers and in supervisory practices employed by the principal? Which of these practices are employed by the principals of more/less effective schools? If principal LPC scores and school effectiveness are considered jointly, is it possible to identify supervisory practices which differentiate high LPC principals of effective schools from low LPC principals of effective schools? Are principals' LPC scores related to the way in which they perceive the commitment of their staffs?

- (2) How important are staff attitudes to the principal as leader? Is staff acceptance of the principal's leadership related to staff satisfaction and to staff rating of the principal's effectiveness?
- (3) How does the principal's control style interact with staff acceptance of the principal's leadership in relation to other indices of staff reactions to the principal? Is the interaction related to staff satisfaction and/or staff rating of the principal's effectiveness?
- (4) Is the interaction between the principal's control style and staff acceptance of the

principal's leadership related to school effectiveness? Are both variables equally significant in the interaction, or is one variable an operator, the other a mediator?

- (5) Does principal control style interact with staff commitment in relation to school effectiveness and staff satisfaction?

IV. THE SIGNIFICANCE OF THE PROBLEM

The past fifteen years have seen extensive research into the leader behavior of school principals and into measurement of related aspects of school climate. Instruments developed have been used extensively in this province, so that many Alberta principals have become aware of their own scores on leader behavior dimensions and of those of their schools on school climate dimensions. It is not uncommon to hear school principals ask what is the "correct" score on each dimension, or the "correct" overall profile. They appear to get little comfort from the generalized answer that the most appropriate behavior is contingent on the demands of the school situation.

General theory in administration does suggest, however, that excessive control of subordinates may be dysfunctional, and indicates that for certain types of organizational participants this may be particularly true.

Argyris (1) compared the needs of the individual's personality with the demands of the formal organization employing him. He identified a number of ways in which close supervision frustrated the individual by thwarting his need for self-actualization. Thus specialization (on the basis of routine process, not knowledge) inhibits personality growth by concentrating on the one low level motor skill. The chain of command, increasingly as we descend it, takes decision-making functions away from the individual, requires dependence. A limited span of control ensures close supervision, taking higher personality functions away from the subordinate and putting them in the hands of a leader.

Argyris suggests that incongruence of individual needs and organizational goals could be reduced by participative or employee-centered leadership, whereby the employees would have a real and effective say in setting up goals and determining how to reach them -- pre-conditions for morale-building psychological success. At the same time, the organization, instead of being pre-determined in form and principles, may itself be permitted to be self-actualizing, to grow. This may lead to shifts in the location and spread of duties, responsibilities and powers.

Gouldner (7) described a sociological investigation of patterns of worker control in a factory. From this study

he derived a model illustrating the operation of a theory that increasingly directive supervision defeats its own ends (i.e. makes the workers less, rather than more reliable, in carrying out their duties.)

Etzioni proposes (4, pp. 68-70) that as task-group members become better trained and more highly committed, their need for self-direction becomes stronger. The leaders of such groups may be well advised to exercise control in a relatively permissive manner.

MacKay (9) investigated bureaucratic trends in schools. He reported that an increase in certain aspects of bureaucracy (i.e. use of hierarchical authority, reliance on written rules, procedural specification) was related to a decline in productivity as measured by pupil achievement.

The Leader Behavior Description Questionnaire (10) and the Organizational Climate Description Questionnaire (8) provide sophisticated measures for describing a number of dimensions of leadership style including some closely related to directive control. Production Emphasis and Role Assumption are examples of dimensions which one might expect to be positively related to degree of directive control, while others, such as Consideration and Tolerance of Freedom, may be negatively related to directiveness.

Once directive and permissive leaders are so identified,

however, there is some difficulty in relating their control style to effectiveness. There is little evidence to support a general hypothesis that permissive leadership is always and everywhere more effective than directive leadership. Blau and Scott (2), for example, found authoritarian supervision in a Welfare Agency related to alienation from the job, but not to a decline in productivity. It seems possible that directive leadership may be as effective as permissive leadership, perhaps more effective, under certain circumstances. Likewise the effectiveness of permissive leadership may be contingent on needs that vary as between task groups and among group members. Gouldner (6) suggests that need for autonomy is related to commitment to an extra-organizational value system such as those developed by professions. Bridges (3) found idiosyncratic variation in need for independence among teachers.

It seems possible that one means of motivating effective behavior in organizations, by providing scope for self-direction, is depressed by directive supervision, and that teaching is one of the occupations in which this effect is likely to occur. But the need for self-direction, and therefore the tendency to react against close supervision, appears to vary with individuals. If variation in need for autonomy is contingent on training and commitment, then it may be possible to determine in which situations directive supervision is more appropriate, and in which situations

permissive supervision is more appropriate.

A particular program of research in social psychology, carried out over the past fifteen years by the University of Illinois, has investigated the relationships between leadership style and the effectiveness of small task groups. The groups investigated have generally been units of typical modern organizations (e.g. business and defence), not, to date, including school systems.

Directed by Fred E. Fiedler (5), the investigators have developed a model for classifying task group situations in terms of favourableness to leadership and hence of suitability for directive or permissive control. One important situational dimension is the complexity of the group task, referring to the clarity or ambiguity of goals, both immediate and long-term. A related dimension is the power of the leader's position, generally higher for clearly specifiable tasks (e.g. in the army). A third dimension, independent of the others and believed to be the most significant, is the warmth of affective relations between the leader and his group.

Associated with the model are scales for measuring each of these variables, together with an instrument for measuring the key variable -- the degree of directiveness/permissiveness characterizing the leader's personality. This variable is measured by the Esteem for the Least Preferred Co-worker (LPC) instrument, which measures the leader's

perceptions of the task orientation of the colleague whose contributions to group task achievement he values least. The resulting score appears to be a simple and reliable measure of the leader's tendency to be directive or permissive in controlling his group. The personality trait measured is highly stable and varies little over time. Variation in this trait among leaders is related to group effectiveness contingent on the three dimensions of the group/task situation already mentioned.

The contingency model developed presents a unique approach to the analysis of leadership effectiveness by giving form to the traditional answer that "it depends on the circumstances". The model formalizes the analysis of the evidence in a way which suggests that relationships between leadership style and group effectiveness are mediated by interaction of the three significant situational factors. Since task complexity and leader position power are largely fixed for any given occupation, leader personality and leader influence over group members become the operative determinants of group effectiveness. Of the four possible combinations of these two variables, one may identify two combinations which are likely to be more effective for a given occupation. Given a particular occupational context, administrators concerned with selecting and posting leaders might then be guided by the evidence as to the more effective combinations of leader directiveness and leader influence.

A task group of particular concern to educational administrators is the school staff, led by the principal. It was proposed that Fiedler's model and instruments, developed for small groups generally, be used to analyse the conditions governing the effectiveness of the supervisory style and practices of the principals of elementary schools.

V. DEFINITION OF TERMS, ASSUMPTIONS, LIMITATIONS AND DE-LIMITATIONS

Definition of Terms

Supervision refers to all activities carried out by the principal in overseeing the work of teachers to ensure that the school attains its goals.

Supervisory Behavior is the principal's behavior in carrying out the supervisory requirements of his role. This is evident both in his style of control, which consists of generalized modes of behavior pervading his relationships with those supervised, and in his supervisory practices -- specific and regular activities by which he supervises.

Directive Supervision is task-oriented even at the expense of cordial relations with subordinates. Compared with permissive leaders, directive leaders are more managing and controlling; they make more decisions, impose their

decisions more on their subordinates, are more demanding; they are more tolerant of a strained interpersonal situation (5, p. 155). Directive leaders score low on the LPC instrument.

Permissive Supervision is, by contrast with directive supervision, more tolerant, less demanding, and more responsive to the need for subordinate satisfaction. Compared with directive leaders, permissive leaders are more concerned with group maintenance than with task achievement, and have greater need of a relaxed interpersonal situation; permissive leaders rely more on the willing contributions of subordinates, exert themselves less to control and direct the activities of the group (5, p. 155). Permissive leaders score high on the LPC instrument.

Effectiveness is defined as the success of the school, relative to other schools, in terms of its total educational product. This is regarded as the closest analogy to the output measures (e.g. team scores, company profits) in the studies through which the contingency model of leadership effectiveness has been developed. The study reported herein made use of two independent judgements of school effectiveness -- the mean of ratings by school system officials, and the mean of ratings by staff members.

Group Atmosphere (GA) is the level of leader-group

affective relations. It is considered to be an index of group acceptance of the leader, and therefore of the leader's influence over the group. This variable is most directly measured by an index of sociometric choice, testing how many group members would actually choose the formal leader as the preferred leader. The study utilized, however, the Group Atmosphere (GA) scale, which is regarded as a reliable index of how well the leader is accepted by the group. This instrument was simpler to administer in that all that was required was to ask the principal to scale his own impressions of staff climate.

Commitment is defined as the extent to which a teacher has internalized and consistently conforms to the values of his profession. It would be difficult to obtain a quick, direct measure of a teacher's commitment, and the study therefore used two indirect and independent indices. One was years of professional training, the other was scores on the Teacher Role Attitude instrument (Professional Status Orientation Scale).

Assumptions

- (1) The study assumed that what is measured by the LPC instrument is a trait which is invariant other than after a great deal of training.
- (2) The study assumed that there is a normal distribution of the trait in the population of school principals

(i.e. that school principals, as a class, are neither abnormally directive nor abnormally permissive.)

- (3) It was assumed that the norms of behavior in the school system in which the study was conducted are not so antagonistic to directive or permissive leadership that the principals would repress their personal inclinations favouring directive or permissive supervision.
- (4) It was assumed that the effects of directive/permissive leadership are evident whether or not a principal is engaged in full-time administrative duties.
- (5) The model was applied in a way which assumed that teaching is an occupation with low task structure and low leader position power.
- (6) It was assumed that the educational product is a joint, not an added, product which depends on the interaction among staff members and between staff and principal.
- (7) The study assumed that schools and principals in the sample are equivalent in terms of their potential for effectiveness.
- (8) The hypotheses assume that the two measures of commitment are valid and reliable measures.
- (9) The hypotheses assume that the mean judgements of school system officials and the mean judgements of

teachers are valid and reliable measures of the effectiveness of the schools being judged.

Limitations

- (1) Effectiveness ratings of schools are far less objective measures of output than countable products such as team scores or company profits. They are based on a far more diffuse range of criteria than are required in judging the creativeness of a piece of writing. To this extent the school effectiveness criterion is far less valid or reliable than any used in the Fiedler studies.
- (2) The group atmosphere ratings are relative only, and none were expected to be very low. The model suggests that under extremely unfavourable principal-staff relations, the effectiveness of directive leadership might be the reverse of that predicted when group atmosphere is only moderately poor.
- (3) All measures, such as those of effectiveness, commitment, and permissiveness, yield scores relevant only to within-sample comparisons. No attempt was made to compare the sample with external, objective standards. Thus comparisons are made between schools which are described as more or less effective only in relation to each other. Principals are more or less permissive relative to each other and it may well be that the most directive principals in the sample are more permissive

in behavior than the most permissive sargeant-major.

- (4) The findings concerning supervisory practices are only significant insofar as the practices are employed regularly and with sufficient conviction to have meaning for staff members.
- (5) The findings reported within might only be applied with caution to schools differing in description and location from those in the sample.

De-limitation

The study was limited to thirty-two elementary schools of six or more teachers nominated by the Edmonton Public School System.

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CHAPTER II

REVIEW OF RELATED LITERATURE AND RESEARCH

I. SUPERVISION AND THE PRINCIPAL

The growth of public education systems has been accompanied by a progressive increase in the extent and complexity of supervisory activities expected of the principal. Principals have increasingly been expected to carry a greater part of the burden of supervision, and to supervise a steadily widening range of the activities of their teachers. Supervision initially referred to the checking activities of the overseer, but its scope has been progressively widened to include in-service training, and, latterly, the development of a staff climate in which much of the responsibility for instructional improvement is taken over by the teachers themselves. Understandably, many conscientious principals have responded by supervising more closely, becoming increasingly directive in control. However there is evidence to suggest that many principals responding to pressures for more supervision have been faced with situations of stress and conflict, and that confusion, evasion, and rationalization have resulted.

The formal responsibility of the Alberta principal for supervising his teachers is set down in the School Act (2, c. 297, s. 375 (1)), and in the Regulations under the

Department of Education (1, s. 13). In addition, contemporary professional conferences and literature stress supervision as the major expectation of the role of the principal, as is illustrated by the 1964 Alberta Principals Leadership Course (11). The course was sponsored by the Alberta School Trustees Association, the Alberta Teachers Association, the Alberta School Inspectors Association, the Department of Education, the Council on School Administration, and the University of Alberta. Significantly, the theme of the course was "The Principal and Program Development."

Despite heavy and growing emphasis on the responsibility of the principal for the supervision of instruction, there is widespread evidence of neglect and avoidance of this function. Both Miklos (20, p. iv) and Larson (14, pp. 113-5) reported figures which indicate that relatively little attention was being given to matters of program development and classroom procedures at staff meetings in Alberta schools. Ziolkowski (28, p. 67) found sixty-eight per cent of Saskatchewan high school teachers questioned had received no supervisory visits from their principals during the school year. The results of an investigation by Trask (24) suggest that many principals expect supervisory visits as required by their systems to lead to conflict with their teachers and therefore resort to rationalization as an avoidance technique. A common form of adaptive behavior

was to concentrate on managerial tasks but to re-define these as forms of supervision.

One factor that differentiates the supervision of instruction from managerial activities is the fact that it provides greater scope for principal-teacher interpersonal contact. However, some principals appear to avoid interaction with their teachers on the issues most significant for the attainment of school goals. This may be because they find increased interaction with teachers on instructional matters unpleasantly stressful. Perhaps other principals are less concerned with the feelings of their teachers, and therefore better able to supervise closely without discomfort.

Contemporary theory about human behavior in formal organizations does provide some guidelines for analysing the problems of interpersonal contact associated with supervision. These problems vary particularly in relation to the extent to which the leader exercises control, a function both of the leader's personality and of the organizational model which guides his behavior. The effectiveness of his supervisory control appears to be contingent on many factors, including the nature of the task faced by his group, his own powers -- both formal and informal -- to influence the group, and the autonomy needs of group members.

II. SOME INFLUENTIAL THEORIES OF SUPERVISION

Much of the supervisory behavior manifested by principals over the years has reflected evolving theories of supervision and reactions to these. One of the most influential has been the bureaucratic model of organization, requiring outright deference of a subordinate, in all matters concerning the tasks of the organization, to the decisions of his superior officers. Akin to bureaucracy in discouraging subordinate initiative is the personal inclination of some leaders to practise a directive style of supervision. The two should not, however, be confused. Moeller reports, "Contrary to expectations, repressive authority was as common in the highly bureaucratic as in the less bureaucratic (school) systems." (21, p. 456). Nevertheless both bureaucracy and directive supervision appear to be potentially dysfunctional. Theory and research results suggest that supervision must cater for the needs of subordinates to make their own decisions, and that this need increases in relation to amount of professional preparation.

Bureaucracy and Schools

Writing at the end of the nineteenth century and the beginning of the twentieth, Max Weber (27) commented on and interpreted the social phenomenon of rapidly extending bureaucracies. Of the characteristics of bureaucracies that

Weber identified, four principles of control -- behavioral rules for incumbents, procedural specification, hierarchical authority, and impersonality -- have typically marked the relationship of an education system to its teachers. Procedural specification, in particular, was applied vigorously when writers such as Bobbitt (8) advocated the application of Taylor's (21) principles of scientific management to schools.

As the bureaucracy's senior office holder at the school, the principal has customarily worked in a system and institutional climate which did little to discourage, much to encourage, the application of bureaucratic principles to the supervision of teachers.

In practice, the application of the bureaucratic model to schools has been by no means universal and there has been considerable variation in the extent to which it has been applied. However, as the prevailing organizational model over the past half-century, it has undoubtedly influenced principals' behavior, has perhaps been the predominating influence during the growth period of belief in the value of educational supervision. It should therefore be taken into account from the point of view of its possible effects on the supervisory behavior of principals, and their consequences for staff morale and effectiveness.

In a study that deals with the extent of control that may be exercised by the principal in supervising, the

nature of authority is a fundamental issue. On this point Weber is quite explicit:

The content of discipline ... is nothing but the consistently rationalized, methodically trained and exact execution of the received order, in which all personal criticism is unconditionally suspended and the actor is unswervingly and exclusively set for carrying out the command. (13, p. 22)

The Directive Leader

Bureaucratic direction and restriction of individual initiative may be re-inforced by the personal inclination of some leaders to supervise closely.

Research in educational administration has given considerable attention to directive supervision as a dimension of leader behavior, perhaps the most well-known concept being Halpin's "Production Emphasis". A principal whose leader behavior is marked by production emphasis is likely to schedule the work of his teachers, check their subject-matter ability, correct their mistakes, to talk a great deal, and to ensure that they work to their full capacity (15, p. 31).

Blau and Scott (7) investigated modes of supervision in welfare agencies. They described authoritarian supervisors whose leader behavior combined close reliance on bureaucratic rules with a directive supervisory style:

The authoritarian supervisor was considered to be strict rather than easy by most of his subordinates; he was felt to supervise closely rather than to let subordinates work pretty

much on their own; the majority of workers did not describe his approach to them as friendly or in favourable terms; he was said to stick closely to procedures rather than make reasonable exceptions to rules; ... An authoritarian supervisor was more likely than another to take the initiative in interaction with his subordinates, as revealed by the proportion of his contacts with workers originated by him rather than by them. This tendency probably indicates that authoritarian supervisors were more apt to check on workers instead of waiting for their subordinates to come to them with their problems. ... Finally, a record of the discussions at work group meetings indicated that authoritarian supervisors were more likely than others to issue orders to their subordinates; a larger proportion of their statements in group meetings were directive. Their style of supervision was to tell workers what to do rather than to use the meetings for explaining issues and letting the group explore them or for discussion of problems raised by subordinates.

(7, p. 148)

Close Supervision and Effectiveness

Katz, Maccoby and Morse examined the supervisory styles of leaders of more and less productive sections in the Prudential Insurance Company's office in Newark, N.J. (16, pp. 17-29). They found the supervisory style of the leaders of the less productive sections was significantly distinguished from that of the leaders of the more productive sections by the following features:

closer supervision -- specifying exactly what each person must do, and when;

detailed explanations of slightly different new procedures;

less time in supervision (more on doing the same work as subordinates);

production centered instructions (rather than employee centered);

company identified outlook (rather than employee identified).

This appears to be a clear-cut finding in favour of more permissive supervision. However it is contradicted by Blau and Scott's findings about the effectiveness of the authoritarian supervisors described above. The investigators had hypothesized that authoritarian supervisors would lead less effective groups. They found instead that authoritarian supervisors led groups that were as loyal and effective as those under less authoritarian leaders, though their groups were distinguished by lower job satisfaction, less willingness to assume responsibility and less extension of casework to clients (7, p. 163).

Some Disadvantages of Inappropriately Close Supervision

While the evidence concerning the effectiveness of close supervision is mixed, there is a significant body of writing describing likely dysfunctions of bureaucracy and of directive leadership.

Blau (6) writes of the way in which ritualistic rules resulting from too great reliance on bureaucratic authority inhibit willingness to change (so necessary for a dynamic school program). He suggests further (6, pp. 80-83) that the inequalities of the hierarchical organization are contrary to our democratic outlook, and that the

application of bureaucratic principles will therefore arouse resentment.

A number of writers examined bureaucratic controls and close supervision from a particular and significant viewpoint -- that the individual needs scope for initiative and self-determination. Argyris wrote about "Personality and Organization" (4), proceeding from the needs of the individual to the effects of formal organization. He wrote of the individual's needs for growth and independence in contrast with the formal organization's demands for dependence, subordination, and passivity (5). This incongruency between individual needs and organizational procedures does not remain fixed at a static level. Each interacts on the other in a downward spiral of increasing control and increasing dependence that would presumably end in a "big brother" type of society. Because management accepts the model of the rational bureaucracy and sets its expectations accordingly, it interprets the adaptive behaviors of the individual as evidence of lower abilities and poorer attitudes and reacts by tightening controls still further. This in turn produces further adaptive behavior and so the vicious cycle continues.

Alvin W. Gouldner presents a model for bureaucratization (13, p. 178) illustrated by observations drawn from a sociological investigation of conflict in an industrial plant and mine. His model describes the pattern of interpersonal relations under conditions of intensified controls

and he highlights their character by contrast with informal but goal directed behavior in a more relaxed organizational climate. Formalized, more detailed rules and procedures were introduced into this latter situation and produced adverse effects on organizational goal attainment. Directive control begot worker resentment which in turn led to even greater reliance on formalized written rules.

III. DIRECTIVE SUPERVISION IN RELATION TO MOTIVATION

There appears to be some support for the view that while directive supervision clashes with some of the motivational devices a leader may employ, it may co-exist with others. Maslow's model of a hierarchy of needs places the individual's need for esteem lower than his need for self-actualization (19, pp. 80-92). Different needs may be catered for by different forms of motivation.

When a leader practises considerate supervisory behavior he is clearly motivating through recognition of esteem needs. When he does a subordinate a favour, supports him under stress, or takes account of his special preferences, he is placing the subordinate under an obligation to him, not only for the service, but for the esteem implied in taking special steps to provide the service. Blau and Scott (7, p. 237) describe how a leader may increase his influence and the compliance of subordinates by providing services which establish a personal link of obligation and loyalty to

him. In this way a leader may make directive supervision less resented, perhaps more palatable, by supporting it with a form of motivation which does not necessarily restrict close supervision. The highest need, however, for self-actualization, cannot be satisfied under conditions of close supervision.

To what extent can a leader be directive, exercising formal authority and motivating through obligating to ensure the compliance of his subordinates? Under what conditions must he be less directive, give his subordinates greater scope for self-direction, in order to be effective?

An important factor is the subordinate's need for autonomy. This may be a personality trait, but it is also associated with degree of skill, which increases with length of professional preparation. The individual's need for autonomy will also be contingent on whether he has a Local or a Cosmopolitan orientation (12).

From the point of view of the organization and the leader, subordinate demands for autonomy may more safely be acceded to if the subordinates are committed to achieving goals they share with the organization, and if they have internalized the skills and values which will cause them to make decisions which the organization and the leader may approve.

If the above assumptions concerning the individual's need for autonomy and his ability to use it effectively are

accepted, it is evident that more permissive, less bureaucratic leadership is likely to be more effective as length of professional preparation increases. How, then, should teachers be supervised?

IV. DIRECTIVE SUPERVISION AND THE TEACHER

In Alberta, teachers are trained for at least two years beyond high school and they would be regarded as a psychologically mature sample of the population. Their potential and need for self-realization might be expected to require a relatively high degree of autonomy. Further, they are employed in a task which by its very complexity makes universal direction impossible, though this fact also provides almost unlimited scope for detailed direction, if desired. In addition, one of the commonly expressed reasons for entering teaching is the attraction of an occupation which provides the practitioner with a great deal of scope for personal initiative.

The evidence suggests that teachers' need for autonomy is relatively high, but that it varies among teachers in relation to training and orientation, and that many teachers are more concerned with satisfying lower needs (for safety and esteem) than the need for self-actualization.

Moeller found teachers expressed a higher sense of

power in the more bureaucratic school systems, and a lower sense of power in "school systems characterized by an arbitrary, repressive style of administration" (21, p. 456). Peabody (22, p. 463) found that elementary school teachers were influenced far more by authority of competence than by authority of position or authority of person when compared with policemen and welfare workers. MacKay (18) found that the use of hierarchical authority in schools was related to lower student achievement scores. Anderson (3) reports that teachers (excepting those in their first year) ranked supervisory visits lowest among various forms of guidance, preferred advisory bulletins and informal discussions with the principal. Washburne (26) found indications that graduate teachers view organizational controls unfavourably. Bridges (9) found that teachers with a high need for independence (i.e. pre-disposed to do things alone without help) consistently expressed less favourable attitudes towards their principals than did their colleagues, independently of certain behavior characteristics of the principals. He suggests that teachers with a high need for autonomy find any kind of organizational control frustrating. Ziolkowski (28) found that teachers working under more effective high school principals were more likely than their colleagues working under less effective principals to say that they had a fair or a considerable share in making decisions regarding the operation of the

school. Etzioni (12, p. 89) writes of elementary teachers as "semi-professionals", and suggests that teacher bureaucrats are more likely than teacher professionals to be selected as principals, because they are less committed to children (less client-oriented and therefore more administration conscious).

One can do little to reconcile these seemingly contradictory findings, other than to note that teachers appear to vary in their need for autonomy, and that this need is to some extent associated with length of professional preparation.

The need for differential treatment seems to be indicated by the results of the Bridges study (9) which reported that for many teachers, satisfaction with their principal depends, not on opportunities for participation in decision-making, but on the extent of support received:

Teachers' attitudes towards the principal were more strongly influenced by the extent to which the principal supported them in their problems with parents and pupils than by anything else which the principal did ... this is complicated by the fact that teachers expect support from the principal even when their actions cannot be justified. (9)

Perhaps some teachers are more subjective, less professional in their orientations, and therefore more tolerant of directive supervision under supportive principals.

Other investigators have related teachers' needs for differential supervisory treatment directly to personality

factors. Von Fange (25) measured personality differences which could lead to principal-staff conflict and he recommends tolerance in supervision in order that school staffs may exploit the complementary contributions possible from persons with different "life styles". Brown (10) experimentally placed seventy-eight student teachers under a condition of stressful supervision. This was followed by an improvement in the performance of some students, but a deterioration in the performance of others. Those students classified as the most anxious third of the group tended to be the ones whose performance deteriorated.

Certainly directive leadership is not always less effective than permissive leadership, as Blau and Scott found when they investigated supervision in a welfare agency.¹ There is a need for a general theory of leadership control style, to integrate apparently contradictory findings into a framework which provides a workable explanation of the conditions governing the success and failure of contrasted styles.

V. SUMMARY

School principals, subjected to increasing pressures for progressively more complex forms of supervision, sometimes

¹See page 26 supra.

avoid this activity, possibly because they find the interpersonal contact entailed makes them feel uncomfortable. Some principals, however, supervise vigorously, regardless of possible friction. All principals could make use of reliable guidance as to the degree of supervisory initiative which is likely to effectively stimulate teachers without the risk of creating dysfunctional antagonisms.

Theoretical statements on personality suggest that the need of subordinates for self-actualization may require considerable autonomy, and that directive leadership could be harmful to subordinate motivation. Research evidence from various organizations, while indicating that directive leadership may at times be dysfunctional, yields results which are on the whole mixed. Research evidence from schools is equally contradictory, indicating, if anything, that need for autonomy varies among teachers.

It is likely that conflicting evidence concerning the effectiveness of directive leadership is due to the complex interaction of a number of factors. There is need for a comprehensive theory which takes account of several factors modifying the effectiveness of directive leadership, thereby facilitating more accurate analysis and prediction.

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CHAPTER III

FIEDLER'S CONTINGENCY MODEL OF LEADERSHIP

EFFECTIVENESS

I. LEADER PERSONALITY AND BEHAVIOR, SITUATIONAL VARIATION, AND GROUP EFFECTIVENESS

The discussion so far has indicated the need for an adjustment between the pressures of hierarchical authority and directive control on the one hand, and the need for self-direction by group members on the other. It is evident that this adjustment varies in relation to the strength of autonomy and other needs of subordinates.

Fiedler (5) provides an empirically derived model which attempts to define and relate to effectiveness the fluctuations of this complementary relationship. A significant feature of the model is the attention given to analysing, not only the style of the leader, but also the context in which he practises his style. Crucial factors measured are the complexity of the task, and the formal power and personal influence relationships mediating the leader's control of the group. Fundamental to the model is the point of view that effective leadership is only partly dependent on the leader. It is equally dependent on the structure and needs of the group, since group output is a product of leader-group interaction. Janda (6) points out that insufficient

attention has been given to the problem of basing leadership studies on the needs and functions of the group being led.

Another distinctive feature of Fiedler's model is the interpretation of leader control style as the manifestation of a largely stable personality trait. The employment of a directive supervisory style by some leaders is attributed to a personal inclination to view task attainment with anxiety and therefore at the expense of interpersonal relations with the members of their groups.

Implications for Research

If groups vary in the style of leadership required, and if leadership style is largely fixed by personality, then sound administration may need to concern itself less with training leaders in desirable leadership behavior than with identifying a leader's personal style and matching him with a group requiring his style of leadership.

Robinson (7) recently investigated leadership in British Columbia schools to test a hypothesis concerning adjustment of leadership style. He predicted that as the professional orientation of school staffs became greater, the level of bureaucratic control exercised by the principal would decrease. His results suggested a trend in the direction hypothesized but were not statistically significant.

Rejection of Robinson's hypothesis might be explained

by Fiedler's contingency model of leadership effectiveness, a theory associating the leader's group versus task orientation with a personality trait. The leader's level of directiveness/permisiveness is regarded as "... reasonably stable over time, although changes do take place depending upon intervening training and experience." (5, p. 155). A leader is not likely, therefore, to modify his style of control to cater for the autonomy/direction needs of his group. Rather, the group will be effective insofar as the leader's control style happens to be consonant with the group situation. (4, p. 314). Where the two are dissonant the group will be less effective.

Fiedler views group acceptance of the leader as one important aspect of the group situation. The relationships between levels of permisiveness, group acceptance of the leader, and the effectiveness of such military groups as artillery crews are schematically summarized in Figure 1. Figure 1A is a contingency table indicating the more and less effective combinations of leadership style and acceptance of the leader by such groups as artillery crews. Directive leadership is only effective when the group accepts the leader, and is less effective than permissive leadership when the leader is not accepted by the group. Figures 1B and 1C graph the contrasting correlations between permisiveness and group effectiveness when the leader is not, and when he is, accepted by his group. Permissive

		Directive Leadership	Permissive Leadership
Group Accept- ance of Leader	<u>High</u>	More Effective Groups	Less Effective Groups
	<u>Low</u>	Less Effective Groups	More Effective Groups

FIGURE 1A

FIGURE 1

FIGURES INTER-RELATING LEADERSHIP STYLE, GROUP
ACCEPTANCE OF THE LEADER, AND GROUP
EFFECTIVENESS

LOW ACCEPTANCE OF LEADER

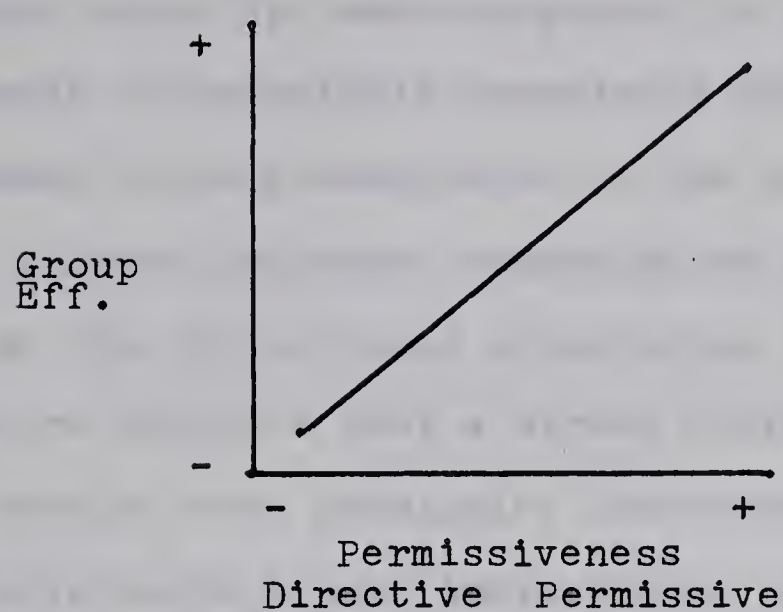


FIGURE 1B

HIGH ACCEPTANCE OF LEADER

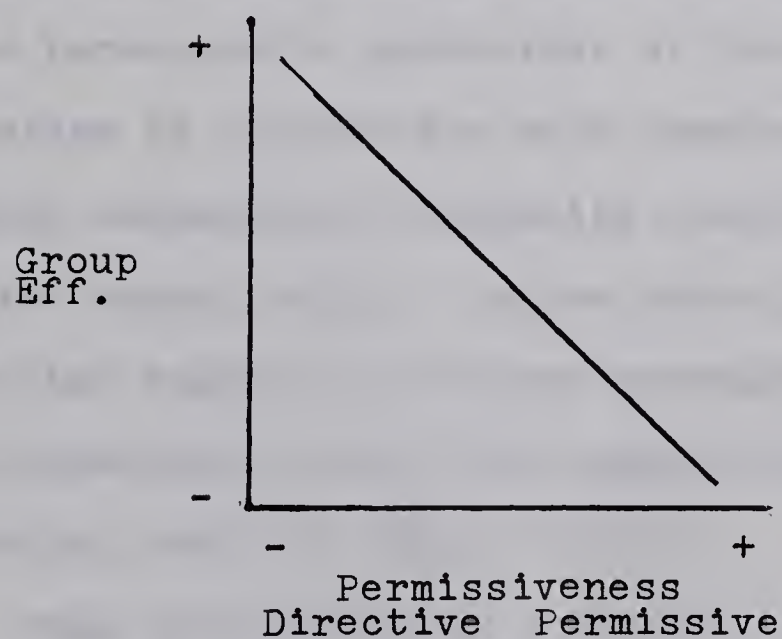


FIGURE 1C

FIGURE 1

FIGURES INTER-RELATING LEADERSHIP STYLE, GROUP
ACCEPTANCE OF THE LEADER, AND GROUP
EFFECTIVENESS

leadership is positively correlated with effectiveness when the leader is less acceptable to the group. Permissive leadership is negatively correlated with effectiveness when the leader is more acceptable to the group.

Another important dimension of the group situation might be the professional orientation of the group. The literature suggests that a strong professional orientation might require more permissive leadership, and that directive leadership might become increasingly appropriate as professional orientation declines. However, if style of control is largely fixed by personality, a leader would not be likely, as predicted by Robinson, to adjust his style to suit staff professional level. Rather, high staff professional orientation co-incidental with a principal less inclined to rely on bureaucratic authority, or low staff professional orientation in conjunction with greater principal inclination to employ bureaucratic authority, would result in more effective school teams. On the other hand, high professional orientation together with more bureaucratic leadership, or low professional orientation together with less bureaucratic leadership, would be less effective.

This interpretation in terms of professional commitment goes well beyond Fiedler's model and cannot claim supporting evidence. The model itself, however, provides a powerful explanation of apparently contradictory results

reported in the literature, and is, further, backed by extensive research which does much to clarify some of the complexities of the problem. It could be of considerable value in the analysis of the effects of contrasting leadership styles practised by school principals.

II. FIEDLER'S CONTINGENCY MODEL OF LEADERSHIP EFFECTIVENESS

Commencing in 1951 with an Office of Naval Research contract (2) and continuing through to the present (5), Fiedler and his associates have developed and employed in a wide range of research situations an instrument known in its present form as the Esteem for the Least Preferred Co-worker (LPC) measure. This instrument has been demonstrated to have considerable power which is resistant to content and form change (2, p. 15) in measuring a trait which may be related to effectiveness in a situational context carefully defined in accordance with a model progressively developed on the basis of research findings. Leadership is related to group effectiveness in a situational context taking account of group and task factors.

The Group and Task Dimensions

The model categorizes group/task situations in terms of favourability to leadership along three dimensions of leader position power, task structure, and affective leader-

member relations. Each is scaled in relation to whether that dimension of "...the group environment will make it relatively easy or difficult for the leader to influence the members of his group." (5, p. 158).

Leader Position Power is defined as formal power in terms of authority of position and control over rewards and sanctions. The powerful leader can "...obtain compliance even though he is personally resented by his group members." (5, p. 161). Lacking formal power, a leader would need to resort to forms of influence such as persuasion and obligating subordinates. Fiedler instances the chairman of a volunteer committee as a leader low on position power -- "The leader's power is, generally speaking, inversely related to the power of his members(sic)." (5, p. 161). The power of a position is defined by a check-list which is used to scale and sum such indicators of power as the leader position's effects on evaluation and promotion, the leader's formal rank and the level of independence of subordinates, and the respect of group members for the leader's opinions, compliments, and criticisms.

Task Structure. This dimension relates to the clarity or ambiguity of the task. The leader's task is easy when the task is highly structured (i.e. operating a simple machine), but difficult when the task is vague and unspecific.

Highly structured tasks (e.g. assembling a rifle) can be programmed -- "The authority of the higher command is implicit in such highly structured tasks and the leader serves primarily to supervise the implementation of the task order." (5, p. 160). In contrast, in policy making or research "the leader knows no more than do his members and he cannot readily order anyone to execute such a task in a specific manner." (5, p. 160). Task structure is operationally defined along four scales -- decision verifiability ("correctness" of solution demonstrable?), goal clarity (task requirements clearly known?), goal path multiplicity (variety of solutions available?), and solution specificity (more than one "correct" solution?).

Affective Leader-Group Relations. This is regarded as the most important dimension of favourability to leadership:

The liked and respected leader does not need formal power, and he can obtain compliance from his group under circumstances which, in the case of a disliked or distrusted leader, would result in open revolt. (5, p. 159)

Because he is liked and respected he can exercise greater influence. This dimension of the group environment was, in the earlier studies, measured by an index of sociometric choice of the leader by group members, but it has more recently been measured by the leader's rating of group atmosphere (GA). If the leader feels accepted by group

members, then he can act more decisively and with more confidence.

The Contingency Model

Once the group/task situational dimensions have been measured, group situations are located in the model in relation to their positions on the three dimensions. This may be observed in Figure 2.

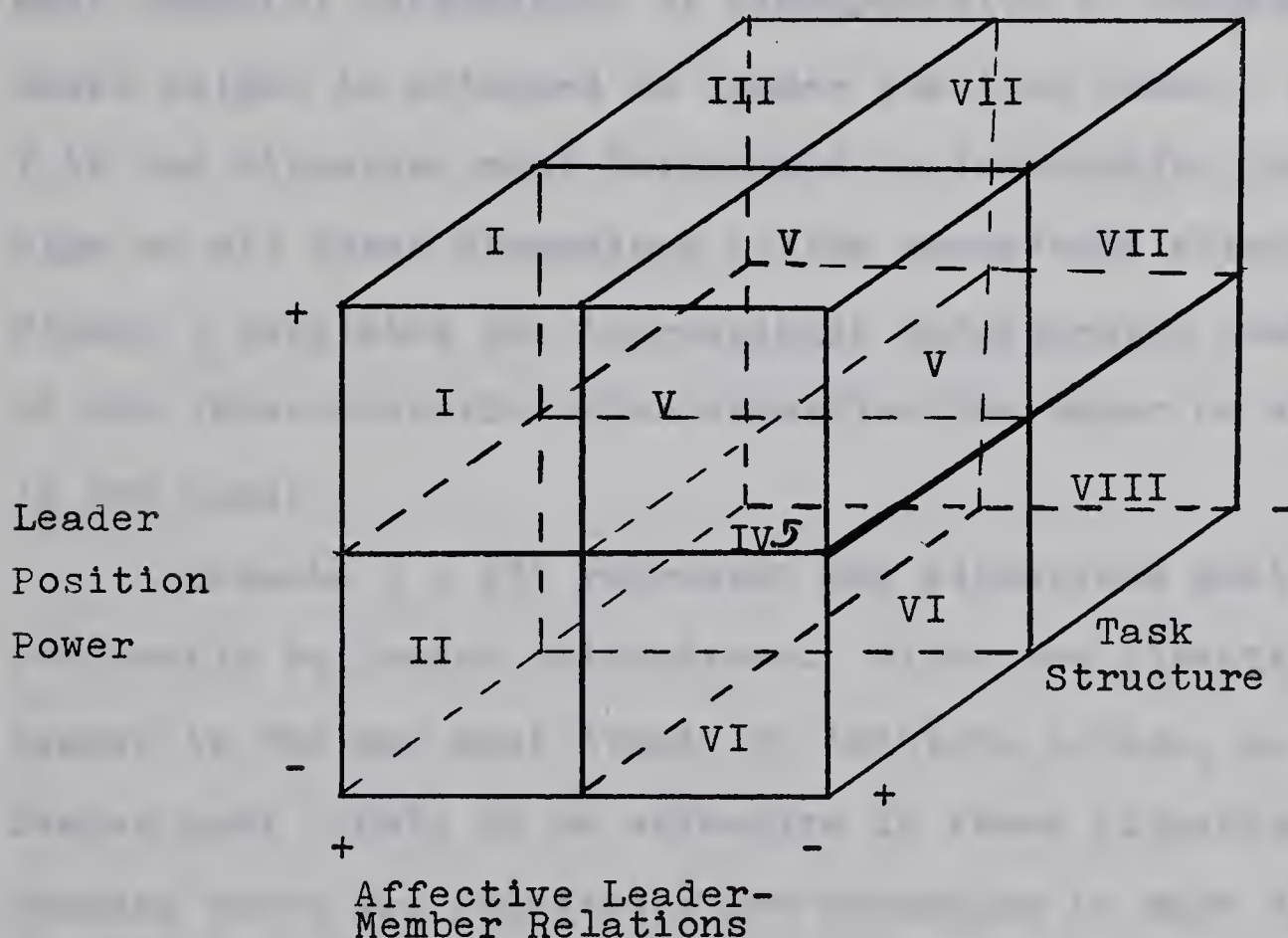


FIGURE 2

FIEDLER'S CONTINGENCY MODEL OF LEADERSHIP
EFFECTIVENESS

Octants are numbered in a sequence of decreasing favourability to leadership. Starting from group task situations in which leader initiatives will be most favourably received, the sequence of octants proceeds down through situations the dimensions of which contain progressively more elements likely to create obstacles to the ready acceptance of leader initiatives by the group. In ordering the octants, most weight is attached to affective leader-member relations, regarded as the most powerful determinant of favourability to leadership. Least weight is attached to leader position power. Octant I is the situation most favourable to leadership, being high on all three dimensions of the group/task situation. Figure 3 tabulates the increasingly unfavourable combinations of the three criteria which establish the order of situations in the model.

Octants I - III represent the situations most favourable to leader initiatives. Since the directive leader is the one most likely to initiate action, he is the leader most likely to be effective in these situations because there are relatively few obstacles to make his group hesitant about acting on his instructions. Octants IV - VII, however, refer to situations less favourable to leadership. There are many more factors in these situations which would incline the group members to have reservations about the instructions of a directive leader. In these situations,

OCTANT	AFFECTIVE RELATIONS	TASK STRUCTURE	LDR. POSITION POWER
I	High	High	High
II	High	High	Low
III	High	Low	High
IV	High	Low	Low
V	Low	High	High
VI	Low	High	Low
VII	Low	Low	High
VIII	Low	Low	Low

FIGURE 3

ORDERING OCTANTS ON COMBINATIONS OF THE THREE
DIMENSIONS OF THE GROUP/TASK SITUATION

therefore, permissive leaders are more effective. In situations categorized by Octant VIII, the situation is uniformly unfavourable to leadership on all three dimensions. Yet in these situations directive leadership is more effective than permissive leadership, apparently because "...the group will fall apart unless the leader's active intervention and control can keep members on the job." (5, p. 165).

This trend in the relationships between leadership style and group effectiveness is relevant to the dilemma

of the principal as a supervisor in a school situation of increasingly complex tasks, progressively better qualified personnel, and a decreasingly powerful leader position.

Traditionally the "boss" could confidently direct when the task was clear, his position was powerful, and the group accepted his leadership (Octant I). This situation tends to favour absolutely directive leadership. Such situations persist with the objectively simple assignment of a military unit. However, the complexity of many organizational tasks (entailing more highly trained staff with, presumably, internalized goals and convictions about what and how to do) reduces confidence in prescription and its prospects of success (Octant IV). These are situations in which permissive leadership is more likely to be effective. But when all aspects of the group situation are unfavourable (Octant VIII), directive leadership assures at least some degree of order and is therefore more effective.

The model was derived from analyses of research with such groups as bomber crews, basket-ball teams, anti-aircraft crews, farm supply companies, and surveying parties. It was later validated with experimental laboratory groups, sales display teams, and staffs of a chain of service stations. The model is supported by results from other studies including a number of "creativity" and church leadership studies (low task structure). In all, the model is supported by the results of thirty-five studies. (5, Table II).

It is important to note that the measure of effectiveness is the same for both group and leader. It is the performance of the group on its assigned task. This was relatively easy to assess for groups faced with highly structured tasks. For groups faced with tasks low on structure, effectiveness was assessed by judgements on a piece of work (e.g. quality of a piece of creative writing). A piece of writing is still a single product, relatively simple to assess by comparison with the wide range of outcomes of the efforts of a school staff.

The Least Preferred Co-worker (LPC) Instrument

This instrument yields a score which is used as the index of the leader's inclination to be directive or permissive. The leader is asked to judge his least preferred co-worker along six- or eight-point scales (approximately twenty) indicating the subordinate's work attitudes as perceived by the leader.¹ Personalities vary in the degree of favourableness with which they view their colleagues in relation to the task. For a time LPC scores were regarded as an index of psychological distance (3). Later observation of high and low LPC leaders in interaction with their groups, using tape recorded transcripts, indicated a close relationship to degree of permissiveness:

¹See Appendix A, Section B, p. 213 infra.

A person with a high LPC score tends to see even a poor co-worker in a relatively favourable manner (i.e., "Even if I can't work with him, he may still be a very nice and valuable person") ... High LPC... leaders behave in a manner which promotes member satisfaction and lowers member anxiety; they are more compliant, more nondirective, and generally more relaxed, especially under pleasant and non-threatening conditions. They are described by their groups as being high on the Ohio State "Consideration" dimension ... A low LPC person perceives his least preferred co-worker in a highly unfavourable, rejecting manner ("If I cannot work with him, he is probably just no good") ... Low LPC leaders ... give and ask for more suggestions, are less inclined to tolerate or to make irrelevant comments, demand and get more participation from members, and are more controlling and managing in their conduct of group interaction ... Low LPC leaders also interrupt group members more often, contribute more statements to the discussion, and make and receive more negatively toned statements, again indicating having less concern with having pleasant relationships with others in their group. (5, p. 155)

Although the model has been developed to define the conditions governing the relationship between LPC scores and effectiveness, there is evidence to indicate that the model may still be applied when other measures of directive-permissive variation are used. Shaw and Blum (8) varied complexity of task structure for groups of college students and substituted for the LPC measure group members' assessments of directiveness/permissiveness as displayed by the leader. Their results may be interpreted as conforming to the model.

The Curve of LPC-Effectiveness Correlations

By regarding the order of Octants (Figure 3) as a

continuum running from greatest to least advantage for the leader, Fiedler was able to plot a curve representing the median correlations between LPC scores and effectiveness for groups in each octant for which there were results from among the thirty-five studies preceding and following the development of the model. Fiedler's curve (5, p. 175) is copied in Figure 4. If the individual correlations are studied (5, Figure 2), it may be noted that there is relatively little dispersal of the correlations in each of the octants about the medians used to plot the curve. Reversal of the direction of the correlations, to a very low correlation, occurs in very few instances.

Fiedler explains the later addition of Octant V-A to the model:

An additional "octant" (V-A) includes real life groups in which the leader's relationship with group members is very poor. This octant was classified as least favourable to the leader, since it seems reasonable to assume that the strongly disliked leader will have a very difficult job.
(5, p. 164)

III. APPLYING THE MODEL TO SCHOOLS

Locating Elementary School Staffs in the Model

In classifying school situations in terms of the contingency model, two assumptions were made concerning two related dimensions.

It was assumed that the task of a group of teachers

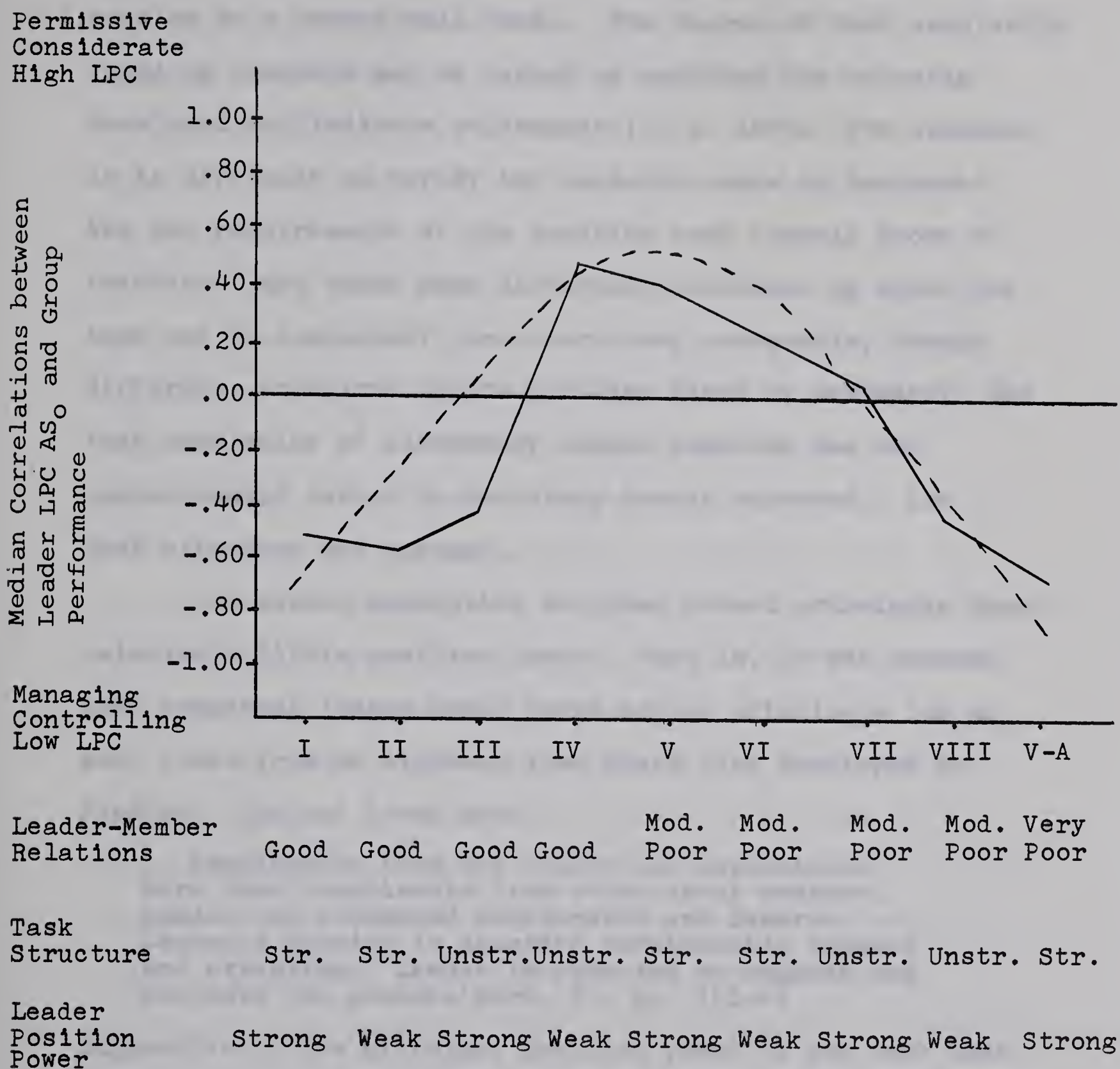


FIGURE 4

VARIATIONS IN LPC-EFFECTIVENESS CORRELATIONS
CONTINGENT ON GROUP/TASK SITUATIONS
(from 5, Fig. 3)

is low on structure (compared with, say, that of a bombing crew or of a basket-ball team). The degree of task complexity faced by teachers may be tested by applying the criteria developed by Fiedler's colleagues (5, p. 160). For example, is it difficult to verify the decisions made by teachers? Are the requirements of the teaching task clearly known to teachers? Are there many different procedures by which the task can be completed? Are there many acceptable, though different, solutions to the problems faced by teachers? The task complexity of elementary school teaching was not operationally tested in the study herein reported. Low task structure was assumed.

The second assumption was that school principals have relatively little position power. That is, it was assumed that competent judges would score school principals low on most items from an eighteen item check list developed by Fiedler. Typical items are:

Compliments from the leader are appreciated more than compliments from other group members.
Leader can recommend punishments and rewards.
Leader's opinion is accorded considerable respect and attention. Leader is expected to suggest and evaluate the members' work. (5, pp. 161-2)

Suggestive of low principal position power is the fact that Edmonton teachers' salaries, below assistant principal level, are scaled on objective criteria of experience, qualifications, and service, which are not subject to any influence by the principal.

Generally, position power and task structure are closely related. One would not expect communities to delegate high power to leaders in normal times when there is considerable uncertainty about goals and methods. Fiedler reports a correlation of .75 between the two dimensions. (5, p. 176).

Fiedler refers also to a number of other dimensions (5, pp. 158-9) which, however, he does not specifically account for in his model. One is member motivation, which, in the context of the literature reviewed in Chapter II, may be linked with commitment, internalized standards, and level of professional preparation. Commitment might be expected to be particularly important for competent performance in situations where task structure is relatively vague and member autonomy is relatively high.

Consideration of task structure and leader position power dimensions of elementary school task groups was a necessary step preliminary to developing hypotheses for the conduct of the study reported in this volume. Elementary school staffs were categorized on these dimensions by assumption, not by measurement. In categorizing elementary school staffs as task groups low on task structure and leader position power, the investigator judged them to be located in Octants IV and VIII of the contingency model.¹

¹See Figure 3, p. 49, supra.

Since position power and task structure may be regarded as constant between schools, the operative contingent variable for the study was the level of affective leader-member relations. This is the only dimension which differentiates between Octants IV and VIII.

Predicting LPC-Effectiveness Relationships

Having thus located the task groups to be studied (elementary school staffs) in the model, predictions were then made in conformity with Octants IV and VIII, based on the trends of correlations as defined by the curve in Figure 4.

In schools where the principal felt that the group atmosphere was pleasant (i.e. that his relations with his staff were good), LPC scores (increasing with leader permissiveness) were expected to correlate positively with effectiveness. In schools where the principal felt that the group atmosphere was only moderately good (i.e. his relations with his staff were relatively poor), then LPC scores were expected to correlate negatively with effectiveness (i.e. the directive principals would be more effective, the permissive principals less effective). The contrasting correlations predicted are summarized in Figure 5. Principals were expected to be effective as leaders when their perceptions of their least preferred staff member's task attitudes were at the same level as their staff's acceptance

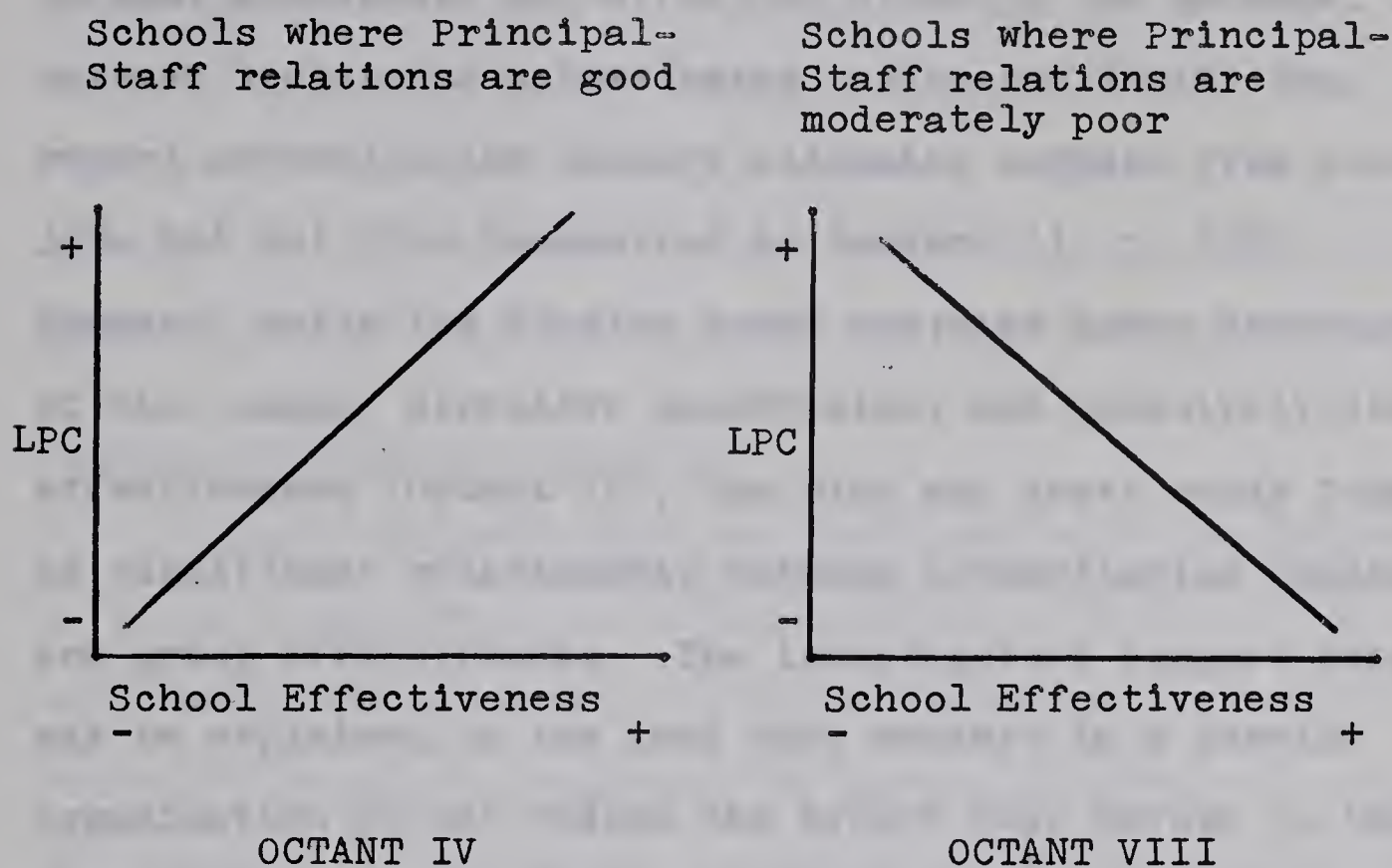


FIGURE 5

REGRESSION LINES LPC/EFFECTIVENESS
UNDER HIGH/LOW GA

of them as leaders (i.e. the effective contingencies for Octants IV and VIII are high LPC/high GA and low LPC/low GA).

The less effective conjunction in Octant IV, though supported by research evidence, seems difficult to explain. Why should a directive leader, who is accepted by his group, be less effective? Perhaps the explanation is that group acceptance of the leader is related less to his leadership effectiveness than to such loyalty winning behaviors as

obligating and supporting, behaviors not directly relating to task attainment but affecting directly the personal link between leader and subordinates. Blau and Scott, too, report authoritarian leaders alienated workers from their job, but not from themselves as leaders (1, p. 153).

However, while the Fiedler study conjoins group acceptance of the leader, directive supervision, and relatively low effectiveness (Octant IV), the Blau and Scott study found no significant relationship between authoritarian leadership and group effectiveness. The investigators suggest this may be explained by the fact that workers in a service organization do not reduce the effort they devote to their work even when the leader is authoritarian. Perhaps if Blau and Scott had split their sample of directive leaders, separating leaders who were accepted by their groups from those who were not, significant relationships with effectiveness might have been observed.

Fiedler suggests (4), in explanation of the relationships observed for groups in Octants IV and VIII, that consonance of LPC and GA result in tension free directive or permissive leadership. The directive leader is tolerant of a strained interpersonal situation and his task-oriented performance is not inhibited by relatively poor leader-group relations. Placed in a situation of good leader-group relations, perhaps he becomes concerned that the group does

not appear to be anxious about the task; as a result he leads poorly. Presumably his anxiety about the task deflects him from making rational decisions. Conversely, the more permissive leader, being more concerned with persons than with tasks, is upset and leads less effectively only when leader-group relations are relatively poor.

Testing the Model in Schools

The literature reviewed indicates that the degree of close supervision of teachers which is likely to be acceptable and effective varies in relation to a number of factors. Fiedler's approach to leadership effectiveness in relation to contingent factors has yielded meaningful results and promises to yield more. His research has developed a powerful model and proven instruments which appear to be applicable to school staffs. It was proposed therefore to conduct a study to test the applicability of Fiedler's interpretations of LPC and GA scores to schools, to define principal LPC scores in terms of typical supervisory practices, and to test the applicability of the contingency model of leadership effectiveness to schools.

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CHAPTER IV

DEVELOPING HYPOTHESES RELATING DIRECTIVE LEADERSHIP TO ELEMENTARY SCHOOL EFFECTIVENESS CONTINGENT ON SITUATIONAL FACTORS

I. VALIDATING THE CONTINGENCY MODEL

The primary purpose of the study was to test the applicability of Fiedler's contingency model of leadership effectiveness to schools. The validity of the model would in a narrow sense be demonstrated if principal LPC-school effectiveness relationships were found to be contingent on the group/task dimensions in the way predicted by the model. However, a more extensive validation would require validation of each of the variables composing the model. In order to meet this more rigorous test of validity, it was proposed to investigate also the supervisory behavior correlates of the LPC scores of elementary school principals, and the validity of GA as an index of staff orientation to the principal as leader. The other two variables defining the situation were not measured. It was assumed that elementary school staffs are low on task structure and that their principals are low on leader position power.

It was decided to investigate also the interaction of principal directiveness (LPC) with staff acceptance of the principal as leader (GA). Would the two interact, not

only in relation to school effectiveness, as predicted by the model, but also in relation to staff preferences for directive/permissive leadership, as might be inferred from the model?

In addition to testing the model, the investigator proposed to test an extension of the model relating to staff commitment. Since commitment is a variable not accounted for in the model, this extension of the contingency model requires special explanation.

II. RELATING COMMITMENT TO THE CONTINGENCY MODEL

There is some support in the literature¹ and from research² for the view that need for self-direction and some measure of autonomy increases in relation to increased vocational preparation, increased professional orientation, and increased commitment. Teachers might be regarded as an occupational group above average on these characteristics. It might therefore be expected that some teachers, particularly those who were more committed to professional goals and values, would be more likely to conflict with, and be unnecessarily restricted under, directive leadership.

The expectation that permissive leadership might be more appropriate to the more committed teachers parallels

¹See pp. 28-9 supra.

²See pp. 30-1 supra.

the trend to permissive leadership in the contingency model. As group/task situations move from Octants I-IV¹, permissive leadership becomes more effective than directive leadership. It will be noted that the transition from Octant I to Octant IV represents a shift from highly structured to less structured tasks. As occupations become less structured, society tends to allocate more resources to the vocational preparation of the practitioners, and to employ more committed organizational members. A historical interpretation in relation to increasing emphasis on the supervision of instruction in schools might be that as teaching tasks have become more complex and less structured, and as teachers have correspondingly become more highly trained and capable of greater autonomy, permissive leadership has become more appropriate and more effective. It is suggested that as the level of commitment and capacity for self-direction of all teachers has not risen at the same rate, the need for direction/autonomy varies from teacher to teacher and from school to school.

A staff of highly committed teachers might, then, be expected to perform best under a principal who gave them considerable scope for self-direction, particularly where the measure of their effectiveness takes quality of teaching into account. On the other hand, a staff of teachers less

¹See Figure 4, p. 54 supra.

committed to professional goals and values might be confused and disinterested under a permissive principal, but perform better under the close supervision of a directive principal. Contrasting correlations between LPC scores and effectiveness, contingent on staff commitment, might then be hypothesized as in Figure 6.

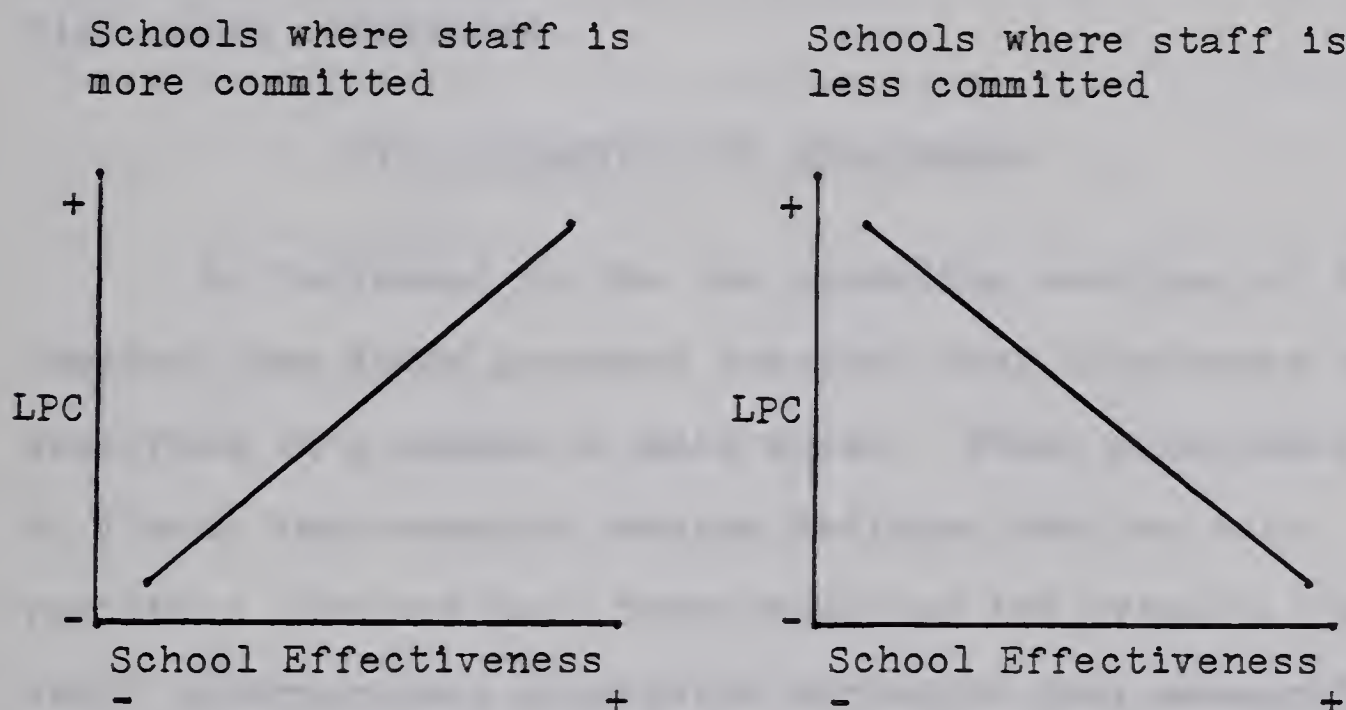


FIGURE 6

CORRELATIONS HYPOTHESIZED UNDER HIGH/LOW
COMMITMENT

The more permissive principals were expected to suit the needs of the more committed teachers, while the less committed teachers were expected to require more directive leadership.

Figure 6 represents a translation of Octants IV and

VIII of the contingency model, substituting level of commitment for favourableness of group atmosphere (GA). This substitution excepted, Figure 6 is a replication of Figure 5. The contingency model predicts that leadership style will be positively or negatively related to group effectiveness contingent on group acceptance of the leader. The extension hypothesizes that directive leadership will be negatively related to group effectiveness contingent on high group commitment.

III. STATING THE HYPOTHESES

As indicated in the two preceding sections of this chapter, the study proposed required that hypotheses be specified in a number of main areas. These hypotheses were to direct the research towards defining the two main variables (LPC and GA), inter-relating the principal and staff interpersonal perception variables they measured, testing the contingency model in relation to school effectiveness, and testing an extension of the model contingent on staff commitment.

It will be noted from Figure 5¹ that there was a general expectation, at the outset of the study, that, given good principal-staff relations, permissive principals would lead more effective staffs than directive principals.

¹See p.58 supra.

This expectation gave direction to all the hypotheses which follow.

Defining the Least Preferred Co-Worker (LPC) Scores of Elementary School Principals

In the course of Fiedler's research, LPC scores had initially been related to the leader's psychological distance, but recently, and more precisely, to directive-permissive variation in the exercise of control. It was therefore proposed to test whether directive-permissive variation in elementary school supervision was related to principals' LPC scores.

Hypothesis I.1

- (a) Principals with high LPC scores will tend to be those who manifest permissive supervisory behavior.
- (b) Principals with low LPC scores will tend to be those who manifest directive supervisory behavior.

Since, however, both directive and permissive leaders may lead effective groups, it was hypothesized that both directive and permissive principals must share certain supervisory practices, unrelated to directive-permissive variation, which lead to school effectiveness. It was assumed that such LPC-neutral practices would be related

directly to school goal achievement, but not to style of control. Effective-directive and effective-permissive principals, it was thought, must surely both emphasize instructional matters in their dealings with staff, to a greater extent than would their less effective colleagues, whether directive or permissive.

Hypothesis I.2

There will be no relationship between principals' LPC scores and the extent to which they emphasize instructional matters.

In addition to being distinguished by LPC-neutral supervisory practices, the principals of more effective elementary schools were expected to be distinguished by other practices which the investigator hypothesized would relate to LPC. These practices would be typical of participatory leadership. On the other hand, the principals of the less effective schools were expected to be distinguished by the practice of close supervision. These expectations were derived from Ziolkowski's¹ findings.

Hypothesis I.3

(a) Principals of more effective schools will be differentiated from principals of less effective

¹See p. 31 supra.

schools by greater emphasis on instructional matters and by greater reliance on participatory leadership.

- (b) Principals of less effective schools will be differentiated from the principals of more effective schools by the practice of closer supervision.

The relationships proposed in Hypotheses I.1, I.2, and I.3 are summarized in Figure 7.

LPC		SCHOOL EFFECTIVENESS
High	I.1 a) Permissive Supervision	I.3 a) Participatory Leadership, and Emphasis on Instructional Matters
Neutral	I.2 Emphasis on Instructional Matters	
Low	I.1 b) Directive Supervision	I.3 b) Close Supervision

FIGURE 7

LINKING LPC WITH SUPERVISORY BEHAVIOR, AND SCHOOL EFFECTIVENESS WITH SUPERVISORY BEHAVIOR

Implied in Figure 7 is an assumption by the investigator that permissive supervisory practices are in general more effective with teachers than directive supervisory practices.

However, the contingency model specifies that under certain conditions directive leadership is more effective. It was therefore expected that among the principals of the more effective schools, there would be some (i.e. those whose affective relations with their staffs were moderately poor; who were not accepted by their staffs as leaders), who were directive, that is, counter to the general pattern, yet effective.

Hypothesis I.4

Among the principals of those schools rated above the median on effectiveness,

- (a) those principals scoring high on LPC will be distinguished by employment of permissive supervisory practices, but
- (b) those principals scoring low on LPC will be distinguished by employment of directive supervisory practices.

Finally, in conformity with the expectation that directive leadership would be more effective with the less committed staffs¹, it was hypothesized that LPC was a reflection of principal perception of staff commitment.

Hypothesis I.5

There will be a positive correlation between principals'

¹See Figure 6, p. 65 supra.

LPC scores and their ratings of their staffs on commitment.

Defining Group Atmosphere (GA) Among School Staffs

GA categories have been found to reflect group acceptance of the leader. Yet the contingency model specifies conditions under which high GA is accompanied by low group effectiveness. The test of the validity of GA as an index of school staff orientation to the principal as leader would have to take into account situations where high GA is accompanied by low school effectiveness. In trying to explain this apparent anomaly, it was proposed that the less effective combinations of LPC and GA might result in low staff satisfaction and therefore low school effectiveness.

It was hypothesized that staff acceptance of the principal as leader would be directly related to staff rating of principal effectiveness, but would not be directly related to staff satisfaction (since satisfaction was expected to be contingent on appropriate LPC/GA combinations).

Hypothesis II.1

Schools' GA categories will be positively correlated with mean staff ratings of the principal's effectiveness.

Hypothesis II.2

There will be a zero correlation between schools' GA categories and mean staff satisfaction ratings.

Inter-relating Staff and Principal Interpersonal Perception Variables

As already indicated, it was expected that the four possible combinations of high and low GA with high and low LPC would be reflected in staff satisfaction.

Hypothesis III.1

Principals' LPC scores will be correlated positively with staff satisfaction in schools categorized high on GA.

Hypothesis III.2

Principals' LPC scores will be correlated negatively with staff satisfaction in schools categorized low on GA.

Testing the Contingency Model in Elementary Schools

The hypotheses which follow are the most significant in terms of validating the model for schools.

In locating elementary school task groups in the model¹, it had been assumed that elementary school principals are low on position power and their staffs are faced with a relatively ambiguous task. It was therefore predicted that, given good principal-staff relations, permissive principals would be more effective than directive principals, but that the relative effectiveness of the two styles would be reversed under moderately poor principal-staff relations.

¹See pp. 53-57 supra.

Hypothesis IV.1

- (a) There will be a positive correlation between principals' LPC scores and the effectiveness ratings of their schools -- in schools categorized high on GA.
- (b) There will be a negative correlation between principals' LPC scores and the effectiveness ratings of their schools -- in schools categorized low on GA.

In the form stated in Hypothesis IV.1, the relationships proposed to exist were a direct statement of the contingency model for Octants IV and VIII, and proposed principal permissiveness as the operative variable, staff acceptance of the principal's leadership as the contingent variable, and school effectiveness as the dependent variable. To determine whether the contingent and operative variables might be exchanged without altering the statement, a complementary hypothesis was proposed.

Hypothesis IV.2

- (a) There will be a positive correlation between schools' GA categories and their effectiveness ratings -- in schools where the principal scores high on LPC.
- (b) There will be a negative correlation between schools' GA categories and their effectiveness

ratings -- in schools where the principal scores low on LPC.

Testing the School Effectiveness and Staff Satisfaction Relationships of Directive Leadership, Contingent on Staff Commitment

The first hypothesis tested a direct substitution of one element in the contingency model. Commitment was substituted for GA. The assumption underlying this hypothesis was that staff commitment was at least as important as the principal's influence in determining the acceptability, and therefore the effectiveness for school goal attainment, of directive leadership.

Hypothesis V.1

- (a) There will be a positive correlation between principals' LPC scores and the effectiveness ratings of their schools -- in schools where the staff scores high on commitment.
- (b) There will be a negative correlation between principals' LPC scores and the effectiveness ratings of their schools -- in schools where the staff scores low on commitment.

Just as Hypothesis IV.2 was intended to test whether the contingent variable was also directly related to the criterion in the contingency model, so Hypothesis V.2 was intended to test whether staff commitment, as well as being

a contingent variable, was also directly related to school effectiveness, contingent on principal permissiveness.

Hypothesis V.2

- (a) There will be a positive correlation between staff commitment scores and school effectiveness ratings -- in schools where the principal scores high on LPC.
- (b) There will be a negative correlation between staff commitment scores and school effectiveness ratings -- in schools where the principal scores low on LPC.

Underlying the thinking which led to the formulation of Hypotheses V.1 and V.2 was an assumption concerning the mechanisms by which individual teachers and school staffs were motivated to respond to directive leadership in relation to school goal attainment. As suggested in some of the literature¹, subordinates' need for autonomy may be related to increased commitment. If so, then it might be expected that the more committed staffs would be less satisfied under directive leadership. Less satisfied teachers might perform their task in such a way as to result in less effective school goal attainment. To test the reactions of committed teachers to directive supervision, the final two hypotheses were proposed.

¹See p. 29 supra.

Hypothesis V.3

- (a) There will be a positive correlation between the scores on commitment of individual teachers and their ratings of satisfaction in the present teaching situation -- under permissive principals.
- (b) There will be a negative correlation between the scores on commitment of individual teachers and their ratings of satisfaction in the present teaching situation -- under directive principals.

The relationship between teacher commitment and satisfaction, in response to directive/permissive supervision, might also be manifested in a relationship between staff commitment and satisfaction, depending on interaction among a group of teachers with respect to these variables.

Hypothesis V.4

- (a) There will be a positive correlation between the mean scores on commitment of school staffs and their mean ratings of satisfaction in the present teaching situation -- under permissive principals.
- (b) There will be a negative correlation between the mean scores on commitment of school staffs and their mean ratings of satisfaction in the present teaching situation -- under directive principals.

IV. SUMMARY

The variables and the hypothesized relationships are summarized in Figure 8.

Hypothesis No.	Variable	Relationship Proposed	Variable
I.1 (a)	high LPC	a relationship	permissive supervision
(b)	low LPC	a relationship	directive supervision
I.2	LPC	no relationship	emphasis on instructional matters
I.3 (a)	high school effectiveness	a relationship	emphasis on instructional matters, and participatory leadership
(b)	low school effectiveness	a relationship	close supervision
I.4 (a)	high LPC/high school effectiveness	a relationship	permissive supervision
(b)	low LPC/high school effectiveness	a relationship	directive supervision
I.5	LPC	a positive correlation	principal's rating of staff commitment

FIGURE 8 (CONTINUED)

THE VARIABLES, AND THE RELATIONSHIPS
HYPOTHESIZED BETWEEN THEM

Hypothesis No.	Variable	Relationship Proposed	Variable
II.1	GA	a positive correlation	staff rating of principal effectiveness
II.2	GA	a zero correlation	staff rating of satisfaction
III.1	LPC	a positive correlation under high GA	staff satisfaction
III.2	LPC	a negative correlation under low GA	staff satisfaction
IV.1 (a)	LPC	a positive correlation under high GA	school effectiveness
(b)	LPC	a negative correlation under low GA	school effectiveness
IV.2 (a)	GA	a positive correlation under high LPC	school effectiveness
(b)	GA	a negative correlation under low LPC	school effectiveness

FIGURE 8 (CONTINUED)

THE VARIABLES, AND THE RELATIONSHIPS
HYPOTHESIZED BETWEEN THEM

Hypothesis No.	Variable	Relationship Proposed	Variable
V.1 (a)	LPC	a positive correlation under high commitment	school effectiveness
(b)	LPC	a negative correlation under low commitment	school effectiveness
V.2 (a)	staff commitment	a positive correlation under high LPC	school effectiveness
(b)	staff commitment	a negative correlation under low LPC	school effectiveness
V.3 (a)	teacher commitment	a positive correlation under high LPC	teacher satisfaction
(b)	teacher commitment	a negative correlation under low LPC	teacher satisfaction
V.4 (a)	staff commitment	a positive correlation under high LPC	staff satisfaction
(b)	staff commitment	a negative correlation under low LPC	staff satisfaction

FIGURE 8 (CONCLUDED)

THE VARIABLES, AND THE RELATIONSHIPS
HYPOTHESIZED BETWEEN THEM

CHAPTER V

DATA COLLECTION

I. THE SAMPLE

The study was carried out in a sample consisting of the principals and teachers in thirty-two schools made available by the Edmonton Public School system.

The schools were made available on the basis of convenience to the system and tended to be the smaller schools (mean staff membership, excluding principals, was twelve teachers). Smallness of staff groups was not considered a disadvantage in using a model derived from research into small group leadership. The schools do not appear to have been selected so as to bias in any way factors relevant to the study. The sample may therefore be regarded as a random sample for the purposes of the survey.

It should be noted that since the sample included schools with as few as six teachers, some of the staffs were led by principals who were also class teachers.

All the schools used in the study were exclusively elementary schools. Elementary-Junior High Schools, common in the Edmonton Public School system, were excluded because it was difficult to confirm that their teachers were subject to a unified style of supervision. In a preliminary survey,

it was possible to find only a few schools in which supervision of elementary classes was carried out exclusively by either the principal or the assistant principal (i.e. in which the staff was subject to the clear leadership style of only one personality).

Had a greater number of suitable schools been available, the sample would have been, as originally proposed, forty-eight schools. This would have been statistically more satisfactory in view of the fact that the model and instruments required partitioning the sample into smaller sub-samples. For example, due to the way in which GA is used to categorize schools¹, it is necessary in testing the contingency model to discard the third of the sample which scores around the median on GA (i.e. group atmosphere not distinctly high or low). The one-third of the schools high on GA and the one-third low on GA were considered separately in testing the contingency model (Hypothesis IV). With an initial sample of forty-eight schools it would have been possible to test each of the Hypotheses IV.1 (a) and (b) and IV.2 (a) and (b) with N's of 16. As it happened, with an initial sample of thirty-two schools, the hypotheses could not be tested with N's greater than 12. However, it was not necessary to discard the middle third of the schools in testing the commitment hypotheses (Hypothesis V) since

¹See p. 90 infra.

both measures of commitment were regarded as interval scales¹, so permitting the sample to be split exactly at the median commitment score without any loss of data.

II. MEASURING THE VARIABLES

The study made use both of instruments developed for research in non-school situations and of measures which have been used before in research into educational administration. In addition, several items were written specifically for the study. The instruments are listed in the order in which the variables they measure appear in Figure 8².

Measuring Least Preferred Co-worker (LPC) Scores

The LPC instrument is an interpersonal measure of a personality trait which manifests itself in leader behavior variability along continua interpreted as psychologically close-psychologically distant and permissive-directive. The scores yielded have consistently related to group effectiveness within the framework of Fiedler's contingency model in thirty-five studies (5). For an example of the LPC measuring instrument, see Appendix A, Part B, p. 213.

¹See p. 92 infra.

²See pp. 77-79 supra.

During fifteen years of research development (summarized in 2, Chapter II and 5, pp. 154-8) the instrument has been progressively simplified, each simplification yielding the same or more significant results for a less troublesome method of data collection and computation. For a long time the scores yielded were referred to as ASo (Assumed Similarity between Opposites) and their use required computation of D for comparison of the subject's ratings of his most preferred and least preferred co-workers. Later it was found that a component score taken alone (the rating of the least preferred co-worker -- LPC) correlated significantly with ASo but yielded a more significant correlation with group effectiveness in terms of the contingency model (4, pp. 309-310).

The scales, too, were reduced from statements to semantic differentials, reducing administration time per subject from up to twenty minutes to less than three minutes without any loss of power (2, p. 15).

Evidence suggests that "AS (sic) is a highly reliable test response set, relatively independent of item content" (2, pp. 14-15). In the same pages Fiedler reports how Cronbach, Hartmann and Ehart empirically clustered the scales on self-ratings, then cross correlated on differences across the assumed similarity dimension. They found item scores correlated as highly across clusters as within clusters

(i.e. persons who perceived a low degree of similarity between themselves and co-workers, tended to do so both on items where they rated themselves highly and on items where they rated themselves lower). Fiedler's research over thirty-five group situations used various forms of ASo and LPC instruments with quite different verbal scales.

The instrument used to measure principals' LPC scores employed scales from various earlier studies. The investigator selected from the scales adjectives commonly used in commenting on the task performance of teachers and in some cases wrote scales which would fit naturally into questionnaires seeking principals' assessments of the task orientation of teachers and staff (e.g. casual ... dedicated).

LPC scores have high internal consistency "with split-half co-efficients of over .90" (5, p. 155), are stable over readministration and are believed to be highly resistant to situational variation (as implied by the model). Leavitt administered a set of forty items to subjects from bomber crews, and a parallel set of forty different items to the same subjects two months later, obtaining a reliability of .68 for 562 subjects (2, pp. 15-16).

LPC scores are obtained by simply summing the ratings given the least preferred co-worker on each of the scales in the instrument.

Early work with ASo had obtained leader interpersonal perception scores by asking leaders to rate the most and

least preferred co-workers in the groups they were leading at the time. However, when leaders were asked to rate the most and least preferred co-workers they had ever worked with, they were less defensive, and the reliabilities of LPC scores were consistently higher (2, p. 14). Nevertheless, principals in the study being reported were asked to rate the least preferred co-workers on their present staffs, and this procedure was expected to yield a spontaneous and less inhibited score because the LPC instrument fitted naturally into a group of scales seeking principals' views on staff generally. (Appendix A, pp. 210-15).

There is some doubt about whether LPC scores may confidently be regarded as interval scales. The grounds for doubt may be referred to the assumptions underlying the computation of D as a measure of ASo (1). Since perceptions of degree of "least preferred-ness" may be expected to vary from one dimension to another, the adding of scores on each of the scales to yield a composite score may constitute the addition of units of variable interval value. Apparently for this reason, practically all correlations with effectiveness have been computed with rho, though Pearson's r was computed for student surveying teams (2, pp. 25-6) after standardizing scores within sections and thereby yielding a minimum estimate of relationships. Where necessary, r_{pb} was computed to measure the relationship for basketball teams (2, pp. 24-5).

The present study conformed with the statistical procedure in most of the previous research by calculating Spearman's rho as an index of all correlations with LPC. LPC scores were therefore used to rank principals along the directive-permissive continuum.

Measuring Principals' Supervisory Behavior

Two aspects of principals' supervisory behavior were measured. One was supervisory style, the style of control pervading the principal's relationships with those supervised. The items were based on characteristics of the leadership style of high and low LPC leaders as observed by Fiedler. The other aspect was supervisory practices, specific and regular supervisory activities of the principal.

Supervisory Style. This was measured by the "Teacher-Principal Interaction Items" (Appendix B, Part B, p. 220). A set of six Likert-type five point scale items was designed to check whether principal LPC scores relate to degree of directiveness/permissiveness in reported supervisory behavior in conformity with observations reported by Fiedler.¹ The purpose was to check the validity of a directive-permissive interpretation of the LPC scores of elementary school principals.

Items 2-5 are based directly on the observed behavior of high and low LPC leaders as reported by Fiedler.¹ Items

¹See pp. 51-52 supra.

1 and 6 are measures of the use of advisory authority (authority of competence versus directive control) taken from the Robinson study because they were significantly related to less reliance on bureaucratic control. (6).

For each item the responses were scored from one to five, the highest score matching the most permissive degree of behavior. The mean staff rating of a principal constituted his score for that particular item. The scores were not summed but principal LPC scores were compared with ratings on each of the six items.

Supervisory Practices. These are specific, countable, quantifiable manifestations of the principal's supervisory behavior. They are the end product of his theory of supervision and of his supervisory style. Many supervisory practices are of such a nature that they provide scope for close direction. As they are in areas infringing the autonomy of the teacher, employment of these practices might conflict with the need for self-direction of some teachers. Principals sensitive to teacher attitudes and uncomfortable in a situation of tension might well, therefore, be found to avoid or minimize such practices (i.e. supervise permissively). Principals who were permissive were expected, on the other hand, to employ practices which encourage teacher participation.

Appendix B, Part C, p.221, constitutes an attempt to

scale frequency of employment of a number of supervisory practices in relation to an expected likely distribution. The items were based largely on those used successfully by Ziolkowski (7), with scales adjusted in accordance with frequencies indicated by his results. Allowance was made, however, for the fact that such practices as visitation are likely to be employed more frequently in elementary schools than in high schools, where subject specialization is more likely to reduce the confidence of principals in freely visiting and advising many staff members.

Principals' LPC scores were compared with their reported frequencies of employment of each practice. Scale scores from one to six on frequency of employment of each practice as reported by staff members were summed for each principal and averaged to provide a basis for rank orders to be compared, one by one, with the rank order of the principals on LPC scores, (i.e. relationships were measured for each of the eleven supervisory practices).

In addition, actual reported frequencies for each practice were compared for more effective and less effective principals, and for effective-directive and effective-permissive principals.

Measuring School Effectiveness

Five members of the Edmonton Public School System central office staff were asked to rate each school on

effectiveness to provide a number of independent judgments. These were combined into mean school effectiveness ratings to provide a criterion for testing the model (Hypothesis IV) and related hypotheses (Hypotheses I.3, I.4, V.1, and V.2). Some care was taken to clarify for the raters that the effectiveness rating should be a rating of group product comparable with those used in the Fiedler studies (Appendix C, p. 225).

Since judgements are a less effective measure of group effectiveness than, say, team scores or net income of a company, there was some doubt as to the validity of this criterion. Therefore, to provide an independent measure of group effectiveness, teachers also were asked to rate their schools on effectiveness (Appendix B, Part D, p.224). Their ratings were combined into mean staff ratings as an additional measure of school effectiveness. The scale used was a six-point Likert-type scale commonly used in research in school administration.

Principals' Ratings of Staff Commitment

Principals were asked to rate staff commitment on a six-point Likert-type scale (Appendix A, Part C, p. 214). This scale was included, not as a measure of staff commitment, but as a check on favourableness of the principal's perception of his co-workers, to be compared with LPC scores.

Categorizing Schools on Group Atmosphere (GA)

The Group Atmosphere instrument is intended to measure the level of leader-group affective relations, and utilizes assessments by the leader on scales similar to those used in obtaining LPC scores. The GA measure used constitutes Appendix A, Part A, p. 212. The score is the sum of the ratings on each of the scales. The raw scores are not used as interval scales but are merely used to classify schools into two categories -- high and low on group atmosphere. To obtain categories which are distinctly high and low on GA, a dichotomy is created by using only those schools scoring in the top and bottom thirds on GA. The central third is discarded for all hypotheses referring to GA.

The group atmosphere score is taken to be an index of the leader's influence over the group, of how well he is liked as a leader and respected by the group. Earlier studies in the series measured the leader's influence directly by using an index of sociometric choice of the leader by group members (3). However later studies found LPC scores were equally predictive of effectiveness when groups were categorized on the basis of leader ratings of group atmosphere (5, p. 159).

Even though the leader rates both LPC and GA, Fiedler reports these scores are independent of each other. In one study reported, leaders' LPC scores were uncorrelated with

their GA scores, a correlation co-efficient of -0.08 being observed (4, p. 308). Further, leaders' GA scores were uncorrelated over different tasks and groups. "This finding suggests that the leader does not 'make' the group atmosphere pleasant or unpleasant." (4, p. 317).

GA scores generally range from good to only moderately poor, and this was expected to be the case with schools, where outright rejection of the principal is rare. However, the scores do appear to discriminate sufficiently between groups for predicting effectiveness in terms of the model.

Measuring Staff Perceptions of the Principal

Hypothesis II proposed a relationship between GA categories and staff ratings of their principals' effectiveness. Teachers were therefore asked to rate their principal's effectiveness on a six-point Likert-type scale (Appendix B, Part D, p. 224) similar to that on which they were asked to rate school effectiveness. The distinction between school effectiveness and the principal's effectiveness was deliberate. Staff ratings of the principal's effectiveness were intended to provide a check on GA categories as measures of staff acceptance of the principal as leader. School effectiveness, on the other hand, was the criterion for the contingency model.

Measuring Teacher and Staff Satisfaction

Each teacher was asked to rate her own satisfaction

with her present teaching position on a six-point Likert-type scale (Appendix B, Part D, p.224). Individual teachers' satisfaction ratings were correlated with their commitment scores under directive and under permissive principals, as an index of the teachers' reactions to their principals' supervisory styles. The same relationships were measured with school staffs as units, in case the relationship was subject to a powerful interaction effect and was more evident in correlating task group attitudes than individual teachers' attitudes. Staff satisfaction for each school was calculated by finding the mean of ratings of satisfaction of all teachers on the staff.

Since the contingency model provides for classes of schools in which there are conjunctions of either favourable staff attitudes to the principal with low effectiveness, or unfavourable staff attitudes to the principal with high effectiveness, it was hypothesized that staff satisfaction would not correlate with GA categories, and a null hypothesis to this effect was proposed (Hypothesis II.2).

Measuring Teacher and Staff Commitment

In view of the difficulty of obtaining a valid measure of teacher commitment, two measures which might be expected to reflect commitment were used independently. Each measure yielded individual teacher commitment scores, which were

combined to yield in addition mean staff scores on commitment.

Years of Training of teachers was one of the measures. Each teacher was asked to check the amount of teacher preparation she had undertaken (Appendix B, Part D, p. 224). The assumption underlying the use of this index of teacher commitment was that teachers undertaking more than the minimum preparation required are committed to self-improvement, as professionals, for the sake of more efficient goal attainment.

The Role Attitudes Measure. This instrument (Appendix B, Part A, pp. 218-9) is Corwin's Professional Status Orientation Scale modified by N. Robinson (6) who has also adapted it for Canadian schools and re-titled it to avoid influencing responses. It is designed to measure the degree of a teacher's commitment to what are judged to be norms of his profession, and his preference for these in resistance to pressures from alternative value systems (i.e. bureaucratic, academic, community).

Judges' opinions were used in selecting items representing client orientation, orientation to the profession and to professional colleagues' competence based on monopoly of knowledge, and orientation to decision-making authority and to control over work. The instrument was progressively refined for internal consistency and

reliability then validated against groups of teachers reputed to be "good" and "poor" professionals. The instrument discriminated significantly at well beyond the .01 level (one tail).

Responses to the items are scored from five down to one (left to right) in accordance with decreasing agreement with professional values. Item 5, however, is scored in reverse, as it expresses an opinion deemed contrary to professional values. Scores on the sixteen items are summed to yield a total professional orientation score.

III. RELATING THE VARIABLES

Due to the different assumptions underlying the several scales and instruments employed, it was necessary to apply several different statistical tests to measure the relationships between the variables.

Pearson's r was used to measure the relationship between variables wherever the variables were measured by interval scales which appeared to meet the assumptions underlying the use of this parametric statistic. In fact, the scales so related were scales which have been extensively related with parametric statistics in educational research (e.g. in the Leader Behavior Description Questionnaire). Scores from the following scales were used in computing product moment correlation co-efficients:

school system and teachers' ratings of
school effectiveness

teachers' ratings of principal's effectiveness

teachers' ratings of satisfaction

teachers' commitment scores

Biserial Correlation was used to measure the relationship between LPC and principals' ratings of staff commitment. This was necessary because principals used only ratings 2 and 3 on the six-point scale, in effect rating on a dichotomy. Biserial correlation was used to measure the relationship between the dichotomy and LPC scores, because a continuous normal distribution was assumed to underly both variables.

Point Biserial Correlations were computed in relating scores from the interval scales to GA categories. This was because the dichotomy created by polarization of schools on GA scores¹ breaks the assumption of a continuous normal distribution underlying the use of a biserial correlation.

Spearman's rho was used where possible to measure relationships with LPC scores. Use of this non-parametric statistic conforms with the practice in the great part of preceding research with this instrument.² In correlating

¹See p. 90 supra.

²See pp. 85-86 supra.

LPC scores with supervisory behavior ratings, Spearman's rho was used to measure the relationships between principals' ranks on LPC scores and their ranks on each of seventeen supervisory behavior items. Ranks of principals on each of these items were obtained by ordering the mean ratings/frequencies assigned to them by their staffs. This was a legitimate procedure in the case of six supervisory behavior items, since they were Likert-type scale items. However there were some reservations about computing mean school frequencies for each of the eleven supervisory practice items (Appendix B, Part C, p. 221) since these items were not, strictly speaking, scales. Therefore, another statistical test was also applied in relating these frequencies to LPC scores.

The Kolmogoroy-Smirnov Test was used to compare the reported frequencies of employment by principals of the eleven supervisory practices. Differences in reported frequencies were compared as between high and low LPC principals and as between principals of schools rated more and less effective. This was a non-parametric test the results of which do not depend on assumed normal distribution of the frequencies of each practice.

It will be noted that two measures of relationship between LPC scores and supervisory practices were used. The Spearman rho correlations may be regarded as the more

conservative measure, since they relate the variables by school units. Ranked LPC scores of principals were correlated with ranked mean frequencies of principals' reported supervisory practices which had been summed and averaged by schools. The Kolmogorov-Smirnov test is not restricted to school units as it compares two groups (high LPC with low LPC principals) rather than individual principals, and the practices of these groups rather than the practices of the individuals.

Phi Co-efficient was used to measure the relationship between GA and principals' ratings of staff commitment, since GA was dichotomous and the principals' ratings of staff commitment, despite the six-point scale, were confined to two points of the scale which are therefore regarded as categories.

Chi Square. In a number of cases fourfold contingency tables were used to test the likelihood of the chance occurrence of the frequencies of the response distributions observed.

IV. COLLECTING THE DATA

The principals of the thirty-two schools in the sample were asked to complete the principals' questionnaire (Appendix A, pp. 210-215).

The thirty-two schools were assigned code symbols (a precaution insisted on by the school system) and school system officials (who knew the code) were asked to rate the schools on effectiveness (Appendix C, p. 225). Once the ratings were received and matched with school code symbols, the code was placed in security and the study was conducted with anonymous data.

Teachers at all schools in the sample were asked to complete the composite questionnaire contained in Appendix B (pp. 216-224). Every effort was made to assure teachers of security. Precautions taken included the wording of the foreword to the questionnaire; the fact that there was no personal identification; the fact that questionnaires were to be completed and placed in sealed envelopes by teachers; and the fact that questionnaires were to be collected, not by the principal, but by a staff member nominated by the principal to collect and return them to the investigator.

Teacher questionnaires were returned from thirty schools, the rate of return being 81.6 per cent. In all three hundred and two teachers returned questionnaires.

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CHAPTER VI

DATA ANALYSIS PROCEDURES

I. DATA PROCESSING

Scores and ratings based on responses by principals to the Principals' Questionnaire and on school effectiveness ratings by school system officials were calculated and recorded by hand. All other operations were performed by electronic computer. All information was punched onto two sets of cards to facilitate speedy measurement of relationships by use of computer programs.

Teachers' Cards

These were punched on the basis of responses to the Teachers' Questionnaire. One card was punched for each teacher and each card carried the following information:

The teacher's responses on sixteen Teacher Role Attitude items (Appendix B, Part A, pp.218).

The teacher's rating of the principal on each of six aspects of supervisory style (Appendix B, Part B, p.220).

The teacher's assessment of the frequency with which the principal employed each of eleven supervisory practices (Appendix B, Part C, pp.221).

The teacher's ratings of the school and of the principal on effectiveness, of herself on satisfaction, and her years of training (Appendix B, Part D. p. 224).

The GA category (High/Central/Low) of the teacher's school.

The LPC category (High/Low) of the teacher's principal.

School Cards

The information on individual teachers was then converted by computer to school means which were output as school cards, yielding the following information about each school and its principal:

Mean staff score on Teacher Role Attitude total scores.

Mean rating of principal on each of six aspects of supervisory style.

Mean reported frequency of employment by the principal of each of eleven supervisory practices.

Mean staff ratings of the school and of the principal on effectiveness.

Mean staff self-rating on satisfaction.

The following information, previously calculated by hand, was then added to the school cards:

The principal's LPC score.

The school's GA category.

The principal's rating of the staff on commitment.

The mean rating of the school on effectiveness by school system officers.

II. VARIATIONS IN THE SIZES OF THE SUB-SAMPLES

The way in which the study was designed required splitting the sample along a number of dimensions. Because

data were obtained from a number of sources and the return from some sources was incomplete, the sizes of the sub-samples varied with the sources of the data on the variables being measured.

The N's for the various sub-samples are summarized and explained briefly in Table I. In some cases the variation in N is adequately explained in Table I, but several need to be more fully explained, and the required explanations follow.

Two schools failed to return teachers' questionnaires, one because the principal felt it would create an unpleasant staff climate, the other because the teachers felt uneasy about commenting with the specificity requested on their principal's supervisory behavior. Four schools were deemed to have returned insufficient teachers' questionnaires to yield reliable mean staff scores on commitment. The return of questionnaires from these schools ranged from 45 per cent to 61 per cent. The remaining twenty-six schools returned from 69.6 per cent up to 100 per cent of teachers' questionnaires. Since the less committed teachers may be the ones least likely to return questionnaires, there was a possibility that the four schools excluded from Hypothesis V (comparing mean staff commitment scores) would have registered artificially high and therefore invalid scores on this variable.

TABLE I
VARIATIONS IN THE SIZES OF THE SUB-SAMPLES

No. of Schools	Dimension along which N constitutes sub-sample
32	Full sample on system ratings of school effectiveness, principal LPC scores, principal GA ratings.
31	Sub-sample on principal ratings of commitment.
30	schools returned teachers' questionnaires.
26	schools returned sufficient questionnaires for mean staff commitment to be regarded as a valid index.
23	schools were categorized on GA.
21	high/low GA schools returned teachers' questionnaires.
11	schools were categorized high on GA.
10	high GA schools returned teachers' questionnaires, sufficient from all ten for a valid index of staff commitment.
12	schools were categorized low on GA.
11	low GA schools returned teachers' questionnaires.
10	low GA schools returned sufficient questionnaires for a valid index of staff commitment.
3	low GA schools' principals scored above LPC median.
2	low GA, high LPC schools returned questionnaires.
9	low GA schools' principals scored below LPC median.
7	high GA schools' principals scored above LPC median.
6	high GA, high LPC schools returned teachers' questionnaires.
4	high GA schools' principals scored below LPC median.

GA categories were intended to include those schools from the sample which scored in the top and bottom thirds on GA. However the high and low GA categories are both slightly greater than one-third of the sample due to the way in which the principals' ratings of GA clustered.

TABLE II
DISTRIBUTION OF RATINGS OF GA

Low GA	Central GA	High GA
34-64*	65-68	69-76
12 schools	65 66 67 68 65 66 68 65 66	11 schools

* One school had a GA score of 34.
The other eleven ranged from 54 to 64.

Due to a relationship between GA and LPC which, since not statistically significant, must be regarded as a chance relationship, the sample was not well balanced:

	<u>Low GA</u>	<u>High GA</u>
<u>High LPC</u>	3	7
<u>Low LPC</u>	9	4

Consequently, the quadrants which, according to the contingency model¹, are likely to include the less effective principal-staff teams (Octants IV and VIII), are considerably

¹See p. 58 supra.

smaller than might be expected. Relationships hypothesized to have existed in some of the sub-samples may, if present, have been partly obscured by this lack of balance in the sample.

III. STATISTICAL LEVELS ACCEPTED

Method of Recording Results

Correlation co-efficients are approximated to the second decimal place. Chi-square indices of the Kolmogorov-Smirnov test are approximated to the first decimal place.

Relationships were regarded as statistically significant where the probability that they had occurred by chance was less than .05. Where this probability was markedly less than .05 (i.e. .02, .01, .001), this is specifically indicated. In tabulated results, asterisks are used to indicate statistically significant relationships. Tabulated relationships which are not marked with an asterisk are not statistically significant.

Where the direction of results conformed to that hypothesized, the test of significance was one tailed. Where the direction of results was contrary to that of the hypothesis, and a two tailed test of significance was applied, this is specifically indicated.

Interpreting the Results

It will be noted that there are frequent occasions

throughout the analysis where sets of results have been interpreted as meaningful although the individual measurements comprising the sets may not be statistically significant. This has occurred where there are strong logical grounds to justify a belief that the set of relationships is not likely to have occurred by chance.

The working sample used in the study was smaller than was originally deemed desirable¹, in view of the need to split the sample along the GA dimension. As analysis proceeded, and it became necessary to split the sample further on dimensions not anticipated², the problem of small subsamples was exacerbated. The statistical levels required for significance were therefore quite high.

However, a set of results none of which is, individually, statistically significant, may re-inforce each other. The logical case for significance is also strengthened when the set of results conforms to a model based on evidence from preceding research. Further re-inforcement occurs when two different measures of the same variable both register the presence of a relationship.

Due to the nature of the model and to the use of alternative measures, complementary re-inforcement occurred in two main ways in the study being reported. They were:

¹See p. 81 supra.

²See p. 162 infra.

A Major Shift in Correlation between two variables frequently occurred when the relationship was measured for groups contrasted on a particular dimension of the group situation. The major shift was a substantial change, sometimes from a positive to a negative correlation, sometimes from a correlation co-efficient close to zero to one which was high and significant. The contingency model of leadership effectiveness is based on contrast in correlations resulting from variation in contingent conditions. Hence the validity of conclusions concerning contrasting correlations in the study being reported gains support from the evidence collected in the development of the model. Even though the correlations observed in the elementary school study were frequently not statistically significant, a pair of contrasting correlations in conformity with the model was regarded as having a lesser chance probability of occurring jointly than the probability attributed to each member of the pair by standard tables of statistical significance.

This approach to evaluating the results is particularly important in the case of the commitment hypotheses. When it was decided to partition the sample on both GA and commitment, the double splitting of the sample often resulted in N's as low as four or five. In such a situation it is common to get apparently high but not statistically significant correlations. However, if most conform to a systematic

distribution of positive and negative correlations, then the likelihood that such a distribution would occur by chance is not great.

Corroboration of Complementary Criteria was deemed to have occurred when the same relationship was evident in both criteria used to measure the one variable (i.e. staff and school-system ratings of school effectiveness, years of training and Teacher Role Attitude scores as measures of commitment). In such cases also the results were interpreted as reducing the probability, in terms of the statistical tables, of either of the relationships having occurred by chance.

CHAPTER VII

DEFINING THE LPC SCORES OF ELEMENTARY SCHOOL PRINCIPALS

Chapters VII to XI present the analysis of the results of testing the five hypotheses, one chapter to each hypothesis.

Chapter VII sets out the analysis of the results of testing the various parts of Hypothesis I. The first set of hypotheses proposed that LPC scores relate to directive-permissive variation in supervisory behavior (I.1), but not to directive-permissive variation in emphasis on instructional matters (I.2); that principals who practice participatory leadership and emphasize instructional matters supervise more effective schools than those who practice close supervision (I.3); that among principals of more effective schools LPC scores relate to directive-permissive variation in practices employed in supervision (I.4); and that principals' LPC scores correlate with the way in which principals perceive staff commitment (I.5).

I. RELATING SUPERVISORY BEHAVIOR TO LPC SCORES AND TO SCHOOL EFFECTIVENESS

This part of Chapter VII presents data concerning Hypotheses I.1 to I.4. The relationships proposed were

measured by two non-parametric statistical tests.

Results of the Two Statistical Tests Compared

The Kolmogorov-Smirnov Test, applied to the differences between groups on supervisory practices only, yielded results that were on the whole statistically significant, permit definition of the supervisory behavior of low LPC principals in terms of practices, and demonstrate the validity, for schools, of Fiedler's interpretation of LPC scores.

The Spearman rho Correlations, between LPC scores and both supervisory style and practices, yielded only three statistically significant correlations, though the larger of the remaining correlations were mostly in a direction supporting the Kolmogorov-Smirnov results.

The Spearman rho correlation was the more conservative of the two measures of relationship and may have been subject to Beta-error in two ways, neither of which was a limitation on the Kolmogorov-Smirnov test. The greater power of the latter test in this study may be due to the fact that by using individual teacher responses instead of the school means which were used for the Spearman rho correlations, it had a very much larger N. Further, by accumulating reported frequencies in each category, it made full use of data which may have been obscured by obtaining mean school scores to rank schools.

Data from the two measures, in part overlapping, are presented in turn.

The Results of the Kolmogorov-Smirnov Test

This test compared the supervisory practices of principals who were high/low on LPC and of principals of schools which were rated high/low on effectiveness. The sample was partitioned twice on effectiveness, once using school system ratings, and once using school staff ratings as the criterion.

The supervisory practices which discriminate between high and low LPC principals need not necessarily be expected to discriminate between the principals of more and less effective schools. The contingency model implies that practices which high LPC principals employ to good effect, contingent on one set of circumstances governing the task-group situation, would not be so effective in a contrasting set of circumstances. Put another way, the set of more effective principals may be expected to include both high and low LPC principals. Hypotheses I.1 and I.3 were intended to define, independently, the supervisory practices which discriminated on LPC and the supervisory practices which discriminated on school effectiveness.

A hypothesized LPC-neutral practice of emphasizing instructional matters at staff meetings was expected to discriminate on only one of these criteria -- school effectiveness (Hypothesis I.2).

Other supervisory practices, which research had found to discriminate between the principals of more and less effective schools¹, were also expected to distinguish between principals high and low on LPC, as per Figure 7². However this correspondence between the effectiveness and directive/permissive character of such practices could not be assumed, and had to be tested.

The data from the Kolmogorov-Smirnov measurements of the relationships proposed in Hypotheses I.1 to I.4 are summarized in Table III. It will be noted that the practices are ordered in the table in accordance with the grouping underlying the hypotheses as illustrated in Figure 7². That is, the first three were regarded as permissive supervisory practices (participatory leadership), the fourth was regarded as an LPC-neutral practice which would discriminate on effectiveness, and the remaining seven were regarded as directive supervisory practices (close supervision).

Hypothesis I.1 (a) is not supported by the data. The three permissive supervisory practices do not distinguish high LPC from low LPC principals.

Hypothesis I.1 (b) is partly supported by the data.

¹See pp. 31 and 68 supra.

²See p. 69 supra.

DIFFERENCES IN REPORTED FREQUENCIES OF PRINCIPALS' SUPERVISORY
PRACTICES WHEN SAMPLE IS DIVIDED ON LPC SCORES AND ON SCHOOL
EFFECTIVENESS RATINGS

PRACTICE Principal Reported to	PRINCIPALS COMPARED WHEN SAMPLE DIVIDED ON											
	LPC Scores								School Effectiveness Ratings			
	Hypothesis I.1 Full Sample				Hypothesis I.4 More Eff. Schools				Hypothesis I.3			
	N1: High LPC N2: Low LPC				N1: High LPC N2: Low LPC				N1: More Eff Sch N2: Less Eff Sch			
	D Max.	Chi Sq.	N1	N2	D Max.	Chi Sq.	N1	N2	D Max.	Chi Sq.	N1	N2
Allow more matters initiated by teachers at staff meetings	.026	0.2	145	155	.237* .166	8.9 4.7	72 86	<u>88</u> <u>87</u>	.200 .164	11.9** 7.9*	<u>160</u> <u>173</u>	140 127
Allow Teachers decide more school matters	.137	5.6	143	<u>157</u>	.211 .171	7.1 5.0	72 85	<u>91</u> <u>87</u>	.169 .124	8.5* 4.5*	<u>163</u> <u>172</u>	137 128
Appoint more staff committees	.081	1.8	132	<u>144</u>	.079 .099	0.9 1.6	<u>69</u> <u>80</u>	81 <u>82</u>	.141 .168	5.4* 7.5*	<u>150</u> <u>162</u>	126 114
Value instructional matters more at staff meetings	.149	6.7	146	<u>154</u>	.222* .170	7.9 5.0	73 86	<u>89</u> <u>88</u>	.248 .048	18.4** 0.7	<u>162</u> <u>174</u>	138 126
Interrupt lessons more by P.A.S.	.086	1.2	88	<u>72</u>	.176 .188	3.3 4.2*	46 61	<u>62</u> <u>59</u>	.296* .287	8.0 5.8	<u>94</u> <u>103</u>	30 21
Visit Classrooms more frequently	.066	1.3	137	<u>156</u>	.096 .077	1.4 1.0	68 83	<u>89</u> <u>87</u>	.182* .090	9.6 2.3	<u>157</u> <u>170</u>	136 123
Be more active while visiting classrooms	.221*	8.3	<u>80</u>	90	.178 .153	3.2 2.4	<u>44</u> <u>47</u>	59 55	.071 .069	0.8 0.8	<u>103</u> <u>102</u>	67 <u>68</u>
Pay longer classroom visits	.274	12.7**	80	<u>90</u>	.207 .250	4.2* 6.4*	43 48	<u>59</u> <u>54</u>	.123 .123	2.5 2.5	<u>102</u> <u>102</u>	68 68
More frequently call teachers to office	.135	5.3*	139	<u>151</u>	.211 .176	6.7* 5.1*	68 81	<u>86</u> <u>84</u>	.103 .105	3.1 3.1	<u>154</u> <u>165</u>	136 125
Prescribe methods to a greater extent	.133	5.2*	139	<u>156</u>	.156 .137	3.8 3.2	69 84	<u>89</u> <u>86</u>	.121 .036	4.3 0.4	<u>158</u> <u>170</u>	137 125
Apply more pressure to teachers	.055	0.9	142	<u>158</u>	.038 .073	0.2 0.9	70 86	91 <u>88</u>	.041 .095	0.5 2.7	161 174	139 <u>126</u>

- Notes:
1. *Significant beyond the .05 level.
*Significant beyond the .01 level.
**Significant beyond the .001 level.
 2. Asterisks indicate one tail test of significance if to right of Chi Square, two tail test if to right of D Max.
 3. Where effectiveness was used to divided the sample, the first row of figures for each practice refers to groups divided on system rating of school effectiveness, the second row to groups divided on staff rating of school effectiveness.
 4. Where either N1 or N2 is underlined, greater employment of the practice was more frequently reported by that group.

Low LPC principals do appear to pay longer classroom visits, to call teachers to the office more frequently, and to prescribe teaching methods to a greater extent. However there is no evidence that they interrupt lessons more by the use of the Public Address System, visit classrooms more frequently, or apply more pressure to teachers. Contrary to hypothesis, it is the high LPC principals who are more active while visiting classrooms.

Hypothesis I.2 is rejected by the data. It appears that emphasis on instructional matters is not an LPC-neutral practice, but characterizes low LPC principals, probably in all cases, but certainly the low LPC leaders of effective schools.

Hypothesis I.3 (a) is supported for all four practices.

Hypothesis I.3 (b) is not supported by the data. The only two practices which discriminate between principals of more and less effective schools are practices which distinguish the principals of more effective schools. This evidence suggests that the principals of more effective elementary schools practice close supervision to the extent that they visit classrooms more frequently and interrupt lessons by use of the Public Address System.

Hypothesis I.4 (a) is rejected and to some extent reversed by the data. It is the low LPC principals of

effective schools who practice participatory leadership by allowing some matters to be initiated by teachers at staff meetings, and who probably allow their teachers to decide more school matters.

Hypothesis I.4 (b) is partly supported by the data. Low LPC principals of effective schools are more managing and controlling in that they interrupt lessons more by using the Public Address System, pay longer classroom visits, and more frequently call teachers to the office.

Interpretation. The data recorded in Table III give general support to the directive-permissive interpretation of LPC scores. However specific items indicate the need for considerable revision and refinement of the way in which it was proposed that the trait measured by LPC scores would manifest itself in the supervisory behavior of elementary school principals. The summary conclusions from the data should include the following points:

- (1) The interpretation of LPC scores as an index of directive-permissive variation in control style is valid for elementary school principals. Low LPC principals tend to be more task-oriented and to employ more directive supervisory practices than high LPC principals.
- (2) There is no evidence to support the equation of permissive supervision with participatory

leadership. It was the low (not the high) LPC principals who were distinguished by permitting their teachers to initiate a greater proportion of matters at staff meetings. If anything, permissive supervision appears to be equivalent to sub-normal supervisory activity. Only one practice (more activity during classroom visitation) positively distinguished the supervisory behavior of the high LPC principals.

- (3) The fact that low LPC principals exercise control more actively may not be interpreted as indicative of autocratic control. Low LPC principals appear to involve their staffs more in discussing and deciding on school problems. This is consistent with Fiedler's description of the behavior of low LPC leaders who "... give and ask for more suggestions, demand and get more participation from their members."¹ Low LPC principals appear to assume their role more positively, none the less so when the role is perceived as requiring subordinate participation in planning and deciding.

¹See p. 52 supra.

- (4) Emphasis on instructional matters is not an LPC-neutral practice which distinguishes principals only on school effectiveness. Rather, it is a highly significant practice in supervision of effective schools which also distinguishes the supervisory behavior of low LPC principals. In fact, all the practices which distinguish low LPC principals appear to distinguish to some extent, though not always significantly, effective elementary school principals. The only practice which positively distinguishes high LPC principals (more activity during classroom visitation) does not at all distinguish between principals on school effectiveness.
- (5) It is also well worth noting that it was the principals of the more effective (not the less effective) schools who more frequently interrupted teachers' lessons by using the Public Address System. Further, the more effective elementary school principals appear to supervise more frequently by classroom visitation.
- (6) The comparison of groups on both principal LPC and school effectiveness has yielded useful, though sometimes unexpected,.

information linking certain practices of

low LPC principals with school effectiveness.

Perhaps the most concise way of summarizing the implications of the data set out in Table III would be to revise Figure 7¹ to bring it into line with the evidence. This revision constitutes Figure 9. It will be noted that the diagonally opposite quadrants are interchangeable, and that while the top right and bottom left quadrants refer to more active supervision, the top left and bottom right quadrants refer to less active supervision.

	LPC	SCHOOL EFFECTIVENESS
HIGH	Less active in employing ten of the eleven supervisory practices	Greater practice of: - participatory leadership - close supervision - emphasis on instructional matters
LOW	Greater practice of: - participatory leadership - close supervision - emphasis on instructional matters	Less active in employing the eleven supervisory practices

FIGURE 9

RELATING SUPERVISORY PRACTICES TO LPC AND TO
SCHOOL EFFECTIVENESS

¹See p. 69 supra.

The Results of the Spearman rho Correlations

The Spearman rho correlations were intended to test Hypothesis I.1 with respect to the six supervisory style items (Appendix B, Part B, p. 220). The correlations were measured also for the eleven supervisory practices to provide a more conservative test, by school units, of their relationship with LPC.

The correlations observed are recorded in Table IV. It will be noted that only three correlations were statistically significant, and these refer to supervisory practices, not supervisory style items. All but one of the Spearman rho correlations support in direction the statistically significant relationships registered by the Kolmogorov-Smirnov test. On one item (allows teachers to initiate more), a low, non-significant rho was contrary in direction to a significant Kolmogorov-Smirnov relationship.

It is worth noting that the second largest correlation supports the Kolmogorov-Smirnov finding that high LPC principals are more active during classroom visitation. This item was included in the questionnaire as an index of directive behavior expected to distinguish low LPC principals. However, the significant association of the behavior with high LPC principals, corroborated by the results of the Kolmogorov-Smirnov test, is not inconsistent with the description of high LPC personalities as being more person-oriented than task-oriented, and may indicate that high

TABLE IV

DEFINING LPC SCORES BY CORRELATION WITH MEAN STAFF
RATINGS ON SUPERVISORY STYLE VARIABLES AND
SUPERVISORY PRACTICES

Staff Reports that Principal	rho LPC	Sig. t
SUPERVISORY STYLE ITEMS		
More insistently demands participation	-0.28	1.572
Gives advice on request only	+0.18	0.986
More closely supervises teachers' work	+0.16	0.838
Allows teachers freely to reject advice	+0.05	0.251
Is easier to work with	-0.03	0.144
Is careful not to upset teachers	+0.02	0.120
SUPERVISORY PRACTICES		
Support Significant Kolmogorov-Smirnov Results		
Pays longer classroom visits	-0.56*	3.614
Is more active while visiting class rooms	+0.44*	2.607
Prescribes teaching methods more	-0.40*	2.291
Values instructional matters more	-0.15	0.782
More often calls teachers to office	-0.13	0.719
More frequently interrupts by P.A.S. (N=10)	-0.08	Not sig.
Contradicts a Significant K.-S. Relation- ship		
Allows teachers to initiate more at meetings	+0.11	0.581
Neither Test Relates it Significantly to LPC		
Gives teachers a greater share in decisions	-0.15	0.806
Applies more pressure	+0.12	0.618
Visits classes more frequently	+0.03	0.157
Appoints more staff committees	-0.03	0.134

* Statistically significant

Significance of t's (30 schools)

t level for significance on	1.313	1.701	2.048	2.467	2.763	3.674
two tailed test	.20	.10	.05	.02	.01	.001
one tailed test	.10	.05	.025	.01	.005	.0005

LPC principals are more concerned, during visits, with putting the teacher and his pupils at ease.

The indication, approaching statistical significance, that low LPC principals may be more likely to be insistent in demanding participation in school activities by all members of staff, fits the directive interpretation of low LPC scores, and may be regarded as complementing the association of low LPC principals with involvement of staff in decision-making, in conformity with Fiedler's description of low LPC leaders as persons who " ... demand and get more participation from their members."¹

II. RELATING LPC SCORES TO OTHER VARIABLES REFLECTING PRINCIPAL AND STAFF PERCEPTIONS OF EACH OTHER

The data reported below relate to Hypothesis I.5. They include, in addition, information about the correlates of LPC scores which will be useful in limiting the definition of LPC, and in interpreting the results of further testing of hypotheses as reported in the chapters which follow.

LPC and the Principal's Perception of Staff Commitment

Hypothesis I.5 proposed the existence of a positive correlation between principals' LPC scores and their global

¹See p. 52 supra.

ratings of staff commitment. This hypothesis expressed the expectation that LPC scores reflect the principal's perceptions of the staff's task orientation. Principals used only two points on a six-point scale (Appendix A, Part C, p. 214) in rating staff commitment. The relationship with LPC was measured by a biserial correlation. The correlation observed was +0.01, which fails to give any support to the hypothesis that a relationship exists. It is inferred from this result that the principal's perceptions of his least preferred co-worker do not colour his perceptions of his staff as a group.

Relating LPC to GA and to Staff Perceptions of the Principal

Fiedler's research had indicated that LPC scores are independent of GA scores, even though both instruments are completed by the leader.¹ Independence of the two variables was not rejected by the way in which responses from school principals on the two variables were distributed, though there was sufficient chance relationship between the two to create imbalance when the sample was partitioned on the two variables.² The correlation between the two variables, as observed in the responses of the principals, is recorded in Table V.

¹See pp. 90-91 supra.

²See p. 104 supra.

Table V sets out results which suggests that LPC scores measure a variable which, taken alone, is related neither to the principal's perceptions of his staff as a group, nor to the way in which staffs react to and perceive their principals. It may, on the face of things, seem pointless to record a set of non-relationships. The data contained in Table V are, however, intended to serve as a background to data presented in Chapters VIII, IX and X. LPC appears to be a bland variable when related to other interpersonal perception variables directly. It only gains significance when the relationship is re-examined contingent on situational factors.

TABLE V

LPC SCORES RELATED TO OTHER VARIABLES REFLECTING
PRINCIPAL AND STAFF PERCEPTIONS OF EACH OTHER

Relationship	N	Correlation
<u>Principal's Perceptions of Staff</u>		
LPC r_{pi} principal's ratings of staff commitment	31	+0.01
LPC r_{pb} GA categories	23	+0.28
<u>Staff's Perceptions of the Principal</u>		
LPC ρ mean staff satisfaction	30	+0.04
LPC ρ mean staff rating of the principal on effectiveness	30	+0.21

The results set out in Table V help to limit the interpretation of LPC scores. It is evident that the way in which the principal perceives his least preferred co-

worker is independent of the way in which he perceives his staff as a group, whether the latter variable is measured by the GA instrument, or by the much simpler global rating of staff commitment, both of which are significantly related.¹

Likewise, the variable measured by the LPC instrument does not appear to be significantly associated with variation in staff satisfaction or staff perceptions of the principal's effectiveness.

III. SUMMARY

Low LPC principals, by contrast with high LPC principals, are more task-oriented in that they attach greater importance to instructional matters at staff meetings. They are more directive in that they prescribe teaching methods to a greater extent, more frequently interrupt lessons by using the Public Address System, make longer classroom visits (but play a less active part in classroom activities during the visit), and are more likely to request teachers to visit the office to discuss teaching methods. The directive control style of low LPC principals is, however, not marked by downward communication only. Low LPC principals appear to make a deliberate effort to involve staff members in discussing school problems and

¹See p. 134 infra.

in making decisions concerning the school. They permit, may even insist that, their teachers initiate a greater proportion of matters at staff meetings, and they give their teachers a greater share in making decisions regarding the operation of the school. There is a marked tendency for the practices which distinguish low LPC, directive principals, to be those which distinguish the supervisory behavior of the principals of elementary schools rated superior on effectiveness.

The extent to which a principal participates in class activities during supervisory visits is positively correlated with LPC scores. This may imply that the less directive, less task-oriented principals are more concerned with establishing cordial relations with teacher and class. This positively distinguishing feature apart, high LPC principals are permissive in that they supervise less actively than low LPC principals, as regards both direct control and involvement of staff in decision-making.

While the way in which principals perceive their least preferred co-workers reflects their positions along a person orientation-task orientation continuum and is related to supervisory behavior, it is not related to the way in which they perceive their staffs as a whole. Nor is staff satisfaction or staff perception of the principal's effectiveness directly related to principals' LPC scores.

CHAPTER VIII

DEFINING GROUP ATMOSPHERE (GA) AMONG SCHOOL STAFFS

Chapter VIII presents an analysis of the data which limited the interpretation of the variable measured by GA categories. It therefore contains the information resulting from testing Hypothesis II. Considerable additional data, emerging from the characteristics of the responses received, is also presented because it is relevant to the interpretation of GA categories, and is believed to provide significant evidence of the importance of GA in moderating several of the variables under study.

I. TESTING WHETHER A DIRECT RELATIONSHIP EXISTS BETWEEN GA AND STAFF PERCEPTIONS OF THE PRINCIPAL

This section refers to the results of testing Hypothesis II.

Even though the GA instrument is completed by the leader, GA categories have been deemed to relate to the leader's influence over the group, and to reflect the extent to which the group is willing to accept his leadership. GA categories have been found to be statistically independent of LPC scores (confirmed in this study¹) so that the two taken together are expected to define a

¹See p. 123 supra.

leadership situation in terms of leader behavior towards the group and the group's readiness to comply with the leader's supervision. Teachers in schools in the high GA category were expected to be more willing to accept their principals' leadership than teachers in schools in the low GA category.

Hypothesis II.1 proposed a positive correlation between GA and staff ratings of the principal's effectiveness. The relationship observed is set down in Table VI, and constitutes a rejection of Hypothesis II.1.

TABLE VI
RELATING GA TO STAFF RATING OF PRINCIPAL
EFFECTIVENESS AND TO STAFF SATISFACTION

Variables Related		Correlations	N
GA r_{pb}	Mean Staff Rating of Principal's Effectiveness	+0.17	21
GA r_{pb}	Mean Staff Satisfaction	+0.19	21

Hypothesis II.2 proposed a zero correlation between GA and staff satisfaction. The relationship observed is not significantly greater than zero, so the null hypothesis proposed is not rejected. However the confirmation of a null hypothesis in this case only has meaning insofar as the conceptual framework for the null hypothesis is supported.¹

¹See p. 71 supra and pp. 137 and 139 infra.

The results of testing Hypothesis II fail to provide any evidence concerning the power of the principal's rating of group atmosphere (GA) as a reflection of the staff's perceptions of the principal. The result of testing Hypothesis II.1 appears to invalidate the interpretation of GA categories as reflecting the willingness of the staff to accept the principal's leadership. Teachers might hardly be expected to choose as leader a principal whom they did not rate as effective.

II. GA AS A MODERATOR OF STAFF PERCEPTION

Although GA does not appear to be directly related to staff perception of the principal's effectiveness as a leader, it appears to measure a more subtle variable than that originally conceptualized by the investigator. Not only is it more subtle, but it is also more powerful than was at first realized.

High GA and Consistency of Staff Perceptual Variation

When the relationships between staff satisfaction and staff rating of principal and school effectiveness are analysed separately for the two contrasted GA categories and then compared, striking variations are observed. The results set out in Table VII provide consistent evidence that the GA measure taps a highly significant attitude of the group towards the leader. In each case, when the sample

TABLE VII

INTER-RELATING STAFF RATINGS OF PRINCIPAL
EFFECTIVENESS - SCHOOL EFFECTIVENESS
AND SATISFACTION CONTINGENT ON GA

CORRELATING MEAN STAFF RATINGS OF	PEARSON CORRELATIONS		
	sample not differentiated on GA	only high GA schools	only low GA schools
	N: 21	N: 10	N: 11
principal effectiveness & school effectiveness	0.42*	0.73***	0.08
principal effectiveness & satisfaction	0.61***	0.81***	0.39
school effectiveness & satisfaction	0.49**	0.79 ***	0.18

* significant beyond the .10 level (two tail)

** significant beyond the .05 level (two tail)

*** significant beyond the .01 level (two tail)

is partitioned on GA, there is a major shift in correlations. Correlations which are significantly high and positive under high GA are much lower and non-significant under low GA.

Of the results tabulated in Table VII, those in column 1 are the significant relationships normally observed when the variables are studied without reference to GA. However, when the principal senses a good staff climate (high GA), there is, in fact, a much greater degree of co-variation in staff satisfaction together with staff perceptions of principal and school effectiveness (column 2). However, when the principal's impressions of staff

climate are relatively unfavourable (low GA), then the unity in staff perception of the three variables is, in fact, greatly reduced or almost completely dispersed (column 3). In this sense, high GA appears to register the presence of a cohesive staff climate the absence of which is registered by low GA.

When GA is high, staffs appear to identify principal effectiveness and school effectiveness, and to identify themselves with the perceived effectiveness of the school and the principal to the extent that they are satisfied when they perceive school and principal as effective, dissatisfied when they perceive them as less effective. On the other hand the three measures of staff attitudes are not significantly related under low GA. Under high GA there appears to exist a remarkable consensus of staff outlook on principal and staff which manifests itself in staff satisfaction. This consensus appears to dissipate under low GA. GA does indeed appear to be a valid measure of a group atmosphere variable related to leader-group cohesion and thereby moderating a group perception of the task situation which is highly sensitive to leader variation.

The interpretation of the GA measure as an index of group acceptance of the leader appears to be validated for elementary schools in that staffs in high GA schools, much more than staffs in low GA schools, appear to identify principal effectiveness and school effectiveness, and their

own satisfaction appears to be much more closely related to perceived principal effectiveness. The validation of the GA instrument is further supported when LPC is related to teacher attitudes to the principal in the light of GA categories.¹

Low GA and Distortion of Perceived School Effectiveness

The moderating power of GA is further highlighted when it is used to partition the sample in relating staff and system ratings of school effectiveness, as shown in Table VIII. The variation in correlations suggests that the GA instrument measures staff perception of the principal in such a way that when GA is high, staff perception of school effectiveness is largely concordant with school effectiveness as rated independently by school system officers, a concordance which disappears when GA is low.

TABLE VIII

RELATING STAFF AND SYSTEM RATINGS OF SCHOOL
EFFECTIVENESS CONTINGENT ON GA

Group Atmosphere (GA) Level	Correlation	N
When schools are not differentiated	$r=+0.48^*$	21
Under high GA	$r=+0.82^{**}$	10
Under low GA	$r=+0.07$	11

Note: correlations are between mean ratings of school effectiveness.

* significant beyond the .025 level (one tailed).

** significant beyond the .01 level.

¹See p. 137 infra.

The high positive correlation under high GA is not taken as indicating that staffs of high GA schools are high on morale and therefore rate their schools high on effectiveness. Rather, it indicates what appears to be an ability to make, or perhaps accept, objective assessments of the effectiveness of their schools. That is to say, where the system rates the school low on effectiveness, and the staff accepts the leadership of the principal, then the staff appears to be able to take a clear-eyed, rational view of the low effectiveness of their school. In this sense, GA appears to be an aspect of affective leader-group relations that is independent of perceived school effectiveness and appears to be related to loyalty.

Certainly, the evidence from Tables VII and VIII, taken together, suggests that the staff may be favourably oriented to the principal as leader, yet perceive principal and school as low on effectiveness, and therefore feel dissatisfied with their teaching situation. In a situation so favourably set up for leadership, it might be expected that, given the kind of leadership they deemed desirable, the staff and school should, in fact, be effective.

GA as a Moderator of Staff Response

Further evidence of the power of the GA instrument emerges from an unexpected source. This is the rate of

return of teachers' questionnaires by schools. A comparison of the proportions returned from, on the one hand, schools in the high and low GA categories, and, on the other, schools in the central GA category, leads to the conclusion that there was a significantly greater rate of return from schools which were polarized on GA. Central GA schools are those which are neither distinctly high nor distinctly low on GA¹.

It may be inferred from the difference between the rates of return that GA does measure an affective orientation of group members, and this appears to be associated with attitudes towards the principal's supervisory behavior. Whether GA is high or low, the feelings of most teachers on supervision appear to be strong enough for them to wish to express their views. However, when GA is middling, many teachers appear to be less concerned about problems of supervision:

	<u>Central GA Schools</u>	<u>High and Low GA Schools Combined</u>
Questionnaires Returned	88	219
Questionnaires not Returned	40	25
Test of the significance of the difference between proportions:	Chi Square = 25.7 p < .001	

¹See pp. 90 - 91 supra.

III. GA, STAFF COMMITMENT, AND THE PRINCIPAL'S PERCEPTION OF STAFF COMMITMENT

GA scores are also related to the way in which the principal perceives staff commitment. Thirty-one principals rated staff commitment either two or three on a six-point scale. Of these, twenty-two were categorized on GA. For the twenty-two principals, the relationship between GA category and rating of staff commitment (ϕ co-efficient = .69) has a significance approaching the .001 level. However, the principal's assessment of staff commitment appears to be subjective since it is not related to either measure¹ of staff commitment used in the study. Nor is the principal's rating of the staff on the GA instrument related to staff commitment in terms of the measures used.

TABLE IX

RELATING PRINCIPALS' PERCEPTIONS OF STAFF COMMITMENT
TO TWO CRITERIA OF STAFF COMMITMENT

CRITERION OF STAFF COMMITMENT	PRINCIPALS' RATINGS OF STAFF COMMITMENT	
	GA Categories	Global Rating (2 or 3)
Mean TRA Scores	$r_{pbi} = +0.06$ N: 20	$r_{bi} = -0.26$ N: 25
Mean Training	$r_{pbi} = +0.11$ N: 20	$r_{bi} = +0.25$ N: 25

TRA = Teacher Role Attitude

¹See pp. 92 - 94 supra.

Since principals' perceptions of staff commitment and GA are related to each other but not to the criteria of staff commitment, and since GA appears to measure powerful staff attitudes towards the principal, it is possible that the principal misperceives leader orientation as task orientation.

IV. SUMMARY

High and low GA categories, based on the principal's scaling of staff climate, seem to be independent of the principal's rating of his least preferred co-worker (LPC) and do not appear to be directly related to either staff satisfaction or staff rating of principal effectiveness. However, even though based on ratings by the principal, the GA categories appear to reflect contrasting and powerful staff attitudes towards the principal as leader. These attitudes strikingly modify the staff's identification of principal and school with their own satisfaction. Low, non-significant correlations become high, significant correlations when mediated by the GA index. Staff rating of school effectiveness shows a high positive correlation with system rating of school effectiveness when GA is high, but none at all when GA is low.

In completing the GA ratings, the principal apparently expresses what he perceives to be the level of staff commitment. The evidence suggests that he may be rationalizing

an awareness, presumably at sub-conscious level, of the extent to which his staff is willing to be influenced by him. The effects of GA on staff ratings of principal, school, and satisfaction, and the much higher rate of return from schools polarized on GA indicate that the variable measured is related to strength of staff affective orientations towards the principal.

Since it reflects an interpersonal perception variable shared by principal and staff, GA appears to be truly a measure of principal-staff affective orientations, tending to rapport on the one hand and alienation on the other. The results obtained when the sample was partitioned on GA constitute strong evidence that group orientation towards the leader is a highly significant dimension of leadership effectiveness, and at the same time demonstrate the power of an instrument that is deceptively simple in format and administration. The GA instrument may prove to be a simple and powerful research tool in analysing the puzzling relationships between morale and satisfaction on the one hand, and group effectiveness on the other.

CHAPTER IX

INTER-RELATING STAFF AND PRINCIPAL INTERPERSONAL PERCEPTIONS

The data reported in this chapter provide the evidence necessary to test Hypothesis III.

No evidence was found of a relationship between principals' LPC scores and either staff satisfaction or staff rating of the principal on effectiveness. However, if the relationships are re-examined separately in high GA schools and in low GA schools, as in Table X, there is a marked and consistent contrast between the two categories.

TABLE X
STAFF RATINGS OF SATISFACTION AND PRINCIPAL
EFFECTIVENESS RELATED TO LPC SCORES,
CONTINGENT ON GA

CORRELATING LPC WITH MEAN STAFF RATINGS OF	Sample not differentiated on GA N = 21	Only high GA schools N = 10	Only low GA schools N = 11
SATISFACTION	$\rho = +0.02$	$\rho = -0.36$	$\rho = +0.52$
PRINCIPAL EFFECTIVENESS	$\rho = -0.06$	$\rho = -0.41$	$\rho = +0.25$

Hypothesis III.1 proposed a positive correlation between LPC and staff satisfaction under high GA. The evidence does not support the hypothesis.

Hypothesis III.2 proposed a negative correlation between LPC and staff satisfaction under low GA. The positive correlation observed does not support the hypothesis.

The data relating LPC with staff rating of the principal on effectiveness are included in Table X to indicate that the hypothesized differential relationships between the two measures of staff perceptions and LPC, proposed in Hypothesis II, do not appear to exist in the sample. Staff rating of the principal's effectiveness and satisfaction relate similarly to LPC.

Though none of the correlations reported in Table X are statistically significant, the probability of joint occurrence of the two LPC-satisfaction correlations (under high and low GA) is significant beyond the .05 level.¹ In addition, the pattern of the four correlations is internally consistent and is consistent with the evidence concerning the appropriateness of high and low LPC leadership of elementary school teachers as reported in the preceding two chapters. The full weight of the evidence so far tends to indicate that the fundamental assumption underlying all the hypotheses in the study, that permissive supervision of

¹See p. 146 infra.

elementary school teachers is the most appropriate, given staff support of the principal, is not consistent with the facts. Rather it is directive supervision which appears to be the more desirable, so long as the principal is accepted by his staff.

When staffs accept the leadership of their principals, satisfaction and rating of principal effectiveness increase as the principal becomes more directive, decrease as he becomes more permissive. When staffs do not accept the leadership of their principals, satisfaction and rating of principal effectiveness increase as the principal becomes more permissive, but decrease as the principal becomes more directive. If principals were capable of varying their leadership style, then principals whose leadership was accepted by their staffs, and who accurately perceived acceptance as such, might confidently assume the role of leader. On the other hand, principals whose staffs did not accept their leadership might be best advised to minimize their leadership activities, for fear of aggravating the irritations of an unfavourable leadership situation.

While neither GA nor LPC, taken singly, appear to be related to the staff climate variables measured in the study¹, the two together define a staff climate in which perceptions of the principal vary strikingly and consistently.

¹See pp. 124 and 128 supra.

If Tables VII and X are considered jointly, it may be observed that:

In high GA schools staffs identify (perceive as a unit) principal, staff, and school. They rate as more effective and are more satisfied with directive principals, under whose leadership they perceive the school as more effective. If the principal is permissive, they tend to rate him low on effectiveness and to rate the school low on effectiveness, and they are correspondingly less satisfied with the teaching situation; despite this, they retain their favourable orientation towards that principal as leader.

In low GA schools staffs do not associate principal effectiveness with school effectiveness but appear to distinguish between the two. Perceived principal effectiveness associates less with satisfaction than under high GA, and perceived school effectiveness ceases to be associated with satisfaction. In these schools, staff satisfaction increases as the principal becomes less directive and more permissive, that is, bothers the staff less.

Since permissive principals in high GA schools are rated low on effectiveness by their staffs, yet their staffs remain favourably oriented to them as leaders, GA appears to measure an intangible, personal power to influence which may have something in common with charisma.

I. SUMMARY

The way in which a principal perceives and rates his staff as a group reflects his sense of his influence over them, though he may not recognize it as such. The way in which he perceives and rates his least preferred co-worker reflects his task orientation and hence his inclination to assume the leadership role and to direct the group. If he senses good relations with his group, then he is likely to improve in the eyes of his staff by leading with assurance and vigour. If he senses poor relations, or only moderately fair relations, then his staff will view him as most effective when he minimizes his interaction with them. However, he is not likely to recognize his sense of the level of his relations with his staff for what it is, so that the most satisfying combinations of staff principal-orientation and principal leadership style are likely to be co-incidental rather than intentional.

How does this consistent matrix of mutual perceptions of staff and principal relate to actual school effectiveness as rated by judges whose perceptions are not coloured by the perceptual field shared by principal and staff?

CHAPTER X

TESTING THE CONTINGENCY MODEL IN ELEMENTARY SCHOOLS

This chapter presents the data gathered in testing Hypothesis IV, the hypothesis which tests the predictive validity, for schools, of Octants IV and VIII of the contingency model of leadership effectiveness.

I. CORRELATING LPC WITH EFFECTIVENESS, CONTINGENT ON GA

This section of Chapter X analyses the data relevant to testing Hypothesis IV.1.

It was hypothesized that under the conditions most favourable to leadership, i.e. when staffs accepted their principals' leadership (high GA), the LPC scores of elementary school principals would be positively correlated with school effectiveness ratings, in conformity with Octant IV of the contingency model. The complementary hypothesis was that when staffs were less accepting of their principals' leadership (low GA), their principals' LPC scores would correlate negatively with school effectiveness ratings, in conformity with Octant VIII of the contingency model. These hypotheses, which located elementary school task groups in Octants IV and VIII of the contingency model¹, were based

¹See pp. 53 - 57 supra.

on the assumptions that elementary school staffs face a task which is low on structure, and that their principals have relatively little leader position power.

In brief, positive correlations were predicted under high GA, and negative correlations under low GA. The observed correlations did not conform to these predictions, nor were they consistent for the two independent measures of school effectiveness. The results are therefore analysed separately for the two measures of effectiveness.

Using School System Rating of School Effectiveness as the Criterion

When mean ratings by school system officials were used to rank schools on effectiveness, the results were not merely a rejection, but an exact reversal, of the complementary relationships hypothesized.

TABLE XI

APPLYING THE CONTINGENCY MODEL TO SCHOOLS, RELATIONSHIPS
OBSERVED USING SYSTEM RATING OF SCHOOL
EFFECTIVENESS AS THE CRITERION

LPC rho Mean System Rating of School on Effectiveness		
Group Atmosphere (GA) Level	Correlation	N
When schools are not differentiated	rho = +0.01	23
Under high GA	rho = -0.48	11
Under low GA	rho = +0.31	12

Hypothesis IV.1 (a) proposed a positive correlation under high GA. The negative correlation observed constitutes a rejection of the hypothesis.

Hypothesis IV.1 (b) proposed a negative correlation under low GA. The positive correlation observed constitutes a rejection of the hypothesis.

The individual measurements in Table XI are not statistically significant. However, taken together, they register relatively strong and contrasting relationships, and suggest that, in schools where the principal possesses the power to influence his staff, the more directive principals are more effective, but that where principals lack influence over their staffs, the more permissive principals are more effective.

These results are consistent with those concerning reported principal supervisory behavior and school effectiveness¹, and concerning staff perceptions of directive and permissive principals, contingent on GA². They suggest that it is the behaviors characterizing low LPC principals which make for effective elementary school leadership, are rated more effective by teachers, and are associated with higher staff satisfaction (given high GA). Low GA principals,

¹See Chapter VII, pp. 109 - 125 supra.

²See Chapter IX, pp. 137 - 141 supra.

however, lack the staff support necessary for effective supervision, and are therefore most effective when they refrain from what would otherwise be effective supervisory behaviors. When actual effectiveness is tested by an independent measure, free from interference by strong staff-principal interpersonal perception variables, the indications are that ambivalent staff attitudes towards directive leadership have important implications for school effectiveness.

Re-locating Elementary School Task Groups in the Contingency Model

The weight of all the evidence suggests a strong rejection of permissive leadership in elementary schools except where the principal's influence over his staff is relatively low. While this finding is a rejection of the fundamental relationships predicted at the outset of the study, which implied that elementary school teachers would best actualize their potential under permissive leadership, it invalidates, not the contingency model, but the location of elementary schools in Octants IV and VIII of the model.

The relationships observed conform to those expected from Octants I - III of the model when GA is high, and for Octants V - VII of the model when GA is low¹. If elementary

¹See Figure 4, p. 54 supra.

school task groups are more accurately located in a pair of these octants, then the results provide a logically consistent case, verging on statistical significance, to validate the use of the model in studying supervision in schools.

Retrospective statistical analysis of the significance levels of the correlations reported in Table XI indicates that the probability of the joint occurrence of the two correlations obtained from the two independent samples of the population (high and low GA schools) approaches significance at the .05 level. The significance level is computed by finding the product of the one tail probabilities of the two correlations, then computing chi square to test the probability of the joint occurrence of the two correlations. The chi square index for Table XI is 9.21 ($p < .06$, one tail). The method is described by Guilford (2, pp. 248-250, "Significance of a Combination of Tests").

One tail tests of the probabilities of the two correlations are used since Octants I - III predict a negative correlation under high GA (as was observed), and Octants V - VII predict a positive correlation under low GA (as was observed). A one tail test of the chi square index of joint probability is used since the two correlations conform in direction to those predicted by Octants I - III and V - VII of the contingency model.

This is regarded as a conservative test of the probability of the joint occurrence of two correlations of contrasting direction, as is predicted by the contingency model. The test applied was designed to measure the probability of the joint occurrence of two correlations of the same sign. The joint occurrence of two correlations contrasting in sign is logically less probable, and were a statistical test available, might be expected to have a probability significant beyond the .05 level.

In sum, the data, which fail to support Hypothesis IV.1, indicate that the investigator was in error in locating elementary school task groups in Octants IV and VIII of the model, and suggest that there is considerable likelihood that the contingency model is valid for schools, given that elementary schools are located in Octants other than IV and VIII.

Figure 10 compares task groups which the Fiedler studies had located in Octants I - III (and V - VII) where, when the group accepts their leader, directive leadership is more effective, with groups located in Octant IV (and VIII) where, under good leader group relations, permissive leadership is more effective.

Since testing the model against system rating of school effectiveness suggests that elementary school staffs should be located in Octants I - III (and V - VII), rather than in Octant IV (and VIII), it seems likely that it is

OCTANTS I/V, II/VI, or III/VII	OCTANTS IV/VIII
B-29 bomber crews Army tank crews Anti-aircraft artillery crews Infantry squads Open hearth steel shops Farm supply company management Sales display teams Service station management High school basketball teams Army and navy ROTC groups	Creativity study using university students Church leadership study Mental health leadership study Chairman and board of directors

FIGURE 10

A COMPARISON OF TASK GROUPS REACTING IN CONTRASTING
WAYS TO DIRECTIVE AND PERMISSIVE LEADERSHIP

the model of formal hierarchical authority, rather than of the voluntary consensus of autonomous individuals, which best fits the elementary school task group situation. That is, the form of control appropriate to leading elementary school staffs seems to be closer in nature to that used by an army officer than to that employed by the chairman of a board of directors or by the leader of highly educated or highly motivated individuals faced with a creative task.

In view of the evidence, it is necessary to re-consider the factors determining where elementary schools task groups should be located in the contingency model. Any given task group is located in a pair of octants of the model contingent on its positions on the Task Structure and Leader Position Power dimensions¹. Since the relationships hypothesized for

¹See Figure 3, p. 49 supra.

elementary schools were rejected, indeed reversed, by the evidence, the indications are that at least one of the assumptions made concerning elementary school task structure and leader position power¹ is not warranted. It will be noted from the model² that negative correlations (LPC-effectiveness) are predicted when leader position power or task structure is weak (Octant II or III). It is only when both are weak (Octant IV), that positive correlations are observed under good leader-member relations.

The problem arising out of the results of the present study is initially one of considering which of the two dimensions (if not both) is likely to be weaker than was initially hypothesized. Later research will no doubt solve this problem empirically.

Task Structure. Competent judges are not likely to agree that elementary school teachers face a clearly specified, highly structured task with commonly agreed on ends and means³. On the other hand, it is possible that teachers, principals and school system officials perceive the educational task in terms of limited and therefore relatively high structured objectives. However, this is mere speculation

¹See pp. 53 - 56 supra.

²See Figure 4, p. 54 supra.

³See pp. 45 and 46 supra.

and deserves investigation in later studies.

Leader Position Power. The initial assumption of low leader position power in elementary schools does, on closer examination, appear to be a possible weak point in the study. A re-examination of the data tabulated by Fiedler (1, pp. 166-173) indicates that there is a wide range of leader position power among groups categorized high on leader position power. For the groups listed in Figure 10, leader positions categorized low on position power were scaled from 2.0 to 7.0 on this dimension, but positions categorized high on position power were scaled from 9.0 to 18.5. It is not likely that the position power of an elementary school principal would be judged to be as high as that of positions rated approximately 18.0 (bomber, tank, and anti-aircraft crew commanders, company managers). It is, however, quite possible that the position of the elementary school principal would be scaled no lower than 9.0, or even 11.8, and therefore be categorized high on the dimension, as was the power of the positions of the leaders of the following groups.

Leaders of three-man ROTC groups who were officially appointed on the basis of cadet rank in course were rated 9.0 on leader position power. Leaders of four-man navy ROTC groups were senior midshipmen who were appointed as leaders over freshmen and sophomore cadets. When these

navy leaders chaired and participated in sessions their position power was rated 9.0 by judges. When they supervised only and were not permitted to contribute to task solutions, but could suggest procedures and veto ideas, their position power was judged to be 11.8.

Elementary school principals are appointed on criteria of rank, seniority and qualifications, and are encouraged to participate in the solution of school problems. It is quite possible that, judged on the items on Fiedler's scale of leader position power¹ in the same way as the above groups, their position would be rated at least 9.0, which, though not very high, would be sufficiently high to place the elementary school task group in the high leader position power category.

This revised assumption requires testing by the use of Fiedler's checklist for judging the power of leader positions. (1, pp. 161-162).

In view of the foregoing re-evaluation of the task structure and leader position power of elementary school task groups, it seems likely that such groups may be categorized low on task structure but high on leader position power. If these revised assumptions are correct, then elementary school task groups should be located in

¹See p. 45 supra.

Octants III and VII of the contingency model, a conclusion which is supported by the results of testing the application of the model to schools, using system rating of school effectiveness as the criterion.

This post factum hypothesis requires testing.

Using Staff Rating of School Effectiveness as the Criterion

When this criterion was used, it did not relate to LPC in a way which was meaningful in terms of the model.

TABLE XII

APPLYING THE CONTINGENCY MODEL TO SCHOOLS.
RELATIONSHIPS OBSERVED USING STAFF RATING
OF SCHOOL EFFECTIVENESS AS THE
CRITERION

LPC rho Mean staff rating of School on Effectiveness		
Group Atmosphere (GA) Level	Correlation	N
When schools are not differentiated	$\rho = -0.24$	21
Under high GA	$\rho = -0.32$	10
Under low GA	$\rho = -0.34$	11

Hypothesis IV.1 (a) proposed a positive correlation under high GA. The negative correlation observed constitutes a rejection of the hypothesis.

Hypothesis IV.1 (b) proposed a negative correlation under low GA. The observed correlation is in the direction predicted, but is not statistically significant.

More important than the rejection of the individual hypotheses is the fact that the pattern of correlations does not conform to the model, which predicts pairs of contrasting correlations for the pairs of octants applicable. It may be concluded from these results that the contingency model is valid for elementary schools only when an independent criterion, i.e. system rating of school effectiveness, is used. Of the two measures used, only system rating of school effectiveness appears to compare with those used by Fiedler in the development of the model. This conclusion is not surprising in view of the powerful matrix of interpersonal perceptions described in Chapter IX. It will be recalled that staff rating of school effectiveness was one of the perceptual variables concerned, a fact which appears to make it an inadequate criterion for the model.

It may be observed that Table XII is consistent with Table XI under high GA but not under low GA. The power of GA as an index of principal-staff interpersonal perceptions has an effect on staff ratings of school effectiveness which is highlighted when data from Tables VII, VIII, XI, and XII are tabulated together in Table XIII. It is staff rating of principal effectiveness, not school effectiveness, which conforms to the contingency model. It is evident that while staffs of high GA schools equate school and principal effectiveness and their ratings

TABLE XIII

VARIATIONS IN STAFF PERCEPTIONS OF DIRECTIVE
LEADERSHIP AND OF PRINCIPAL AND SCHOOL
EFFECTIVENESS, CONTINGENT ON GA

VARIABLES CORRELATED	UNDER HIGH GA	UNDER LOW GA
LPC and mean <u>system</u> rating of school effectiveness	-0.48	+0.31
Mean <u>staff</u> and <u>system</u> ratings of school effectiveness	+0.82	+0.07
LPC and mean <u>staff</u> rating of <u>school</u> effectiveness	-0.32	-0.34
Mean staff ratings of <u>principal</u> and <u>school</u> effectiveness	+0.73	+0.08
LPC and mean staff rating of <u>principal</u> effectiveness	-0.41	+0.25

Correlations with LPC: rho
Other correlations : r

The brackets relate the correlations by indicating the presence or absence of common variance which appears to account for the phenomenon of same sign in the first column under high GA, and the phenomenon of different sign in the second column under low GA. That is, under high GA, LPC correlates consistently negatively with system and staff ratings of school effectiveness and with staff ratings of principal and school effectiveness, presumably because under high GA there is a considerable degree of common variance between system and staff ratings of school effectiveness, and between staff ratings of principal and school effectiveness. Under low GA, LPC scores do not correlate consistently with the three effectiveness variables, perhaps because the common variance observed under high GA is no longer present under low GA.

accord with system rating of school effectiveness, this consensus does not include staff ratings of school effectiveness under low GA. Presumably, when staffs do not accept the principal's leadership, they differentiate between principal effectiveness and school effectiveness, probably relate school effectiveness to their own efforts as distinguished from those of the principal, whom they tend to rate as most effective when he interferes least with their efforts.

II. CORRELATING GA WITH EFFECTIVENESS,

CONTINGENT ON LPC

This section of Chapter X presents data which will assist the reader in evaluating the validity of Hypothesis IV.2 and of the concept underlying the hypothesis.

Hypothesis IV.2 was intended to test whether the contingent and operative variables in Hypothesis IV.1 are interchangeable. That is, is group effectiveness an outcome of group atmosphere, contingent on LPC? The hypothesis tests and compares GA-effectiveness correlations under high and under low LPC principals. The results are recorded in Table XIV.

Hypothesis IV.2 (a) proposed a positive correlation under high LPC. There is a tendency in this direction when staff rating is the criterion, but the correlation is far

from statistical significance. The hypothesis is not supported by the data.

Hypothesis IV.2 (b) proposed a negative correlation under low LPC. The hypothesis is not supported by the data.

TABLE XIV
RELATING GA AND SCHOOL EFFECTIVENESS,
CONTINGENT ON LPC

In Schools under Principal who	Point Biserial Correlations between GA and Mean Ratings of School Effectiveness by			
	School System Officials		School Staff	
scores <u>Above</u> median LPC	-0.09	N=11	+0.28	N=9
scores <u>Below</u> median LPC	-0.07	N=12	+0.14	N=12

In view of the results of testing Hypothesis IV.1, it is necessary to consider not only the results of testing the formal Hypotheses IV.2 (a) and IV.2 (b), but the possibility of reversed correlations consistent with those resulting from testing Hypothesis IV.1. That is, if directive leadership is more effective under low GA then one should look for a positive correlation between GA and effectiveness under low LPC, and a negative correlation under high LPC. The results in either case fail to support

the hypothesis that the two variables, GA and LPC, are interchangeable in relation to effectiveness.

It is evident from section one of this chapter that LPC is the operative variable, GA is the contingent variable, and school effectiveness is the dependent variable. It appears that this structure of relationships may not be inverted. This negative finding is useful in limiting the contingency model.

III. SUMMARY

Analysis of the data supports the validity of applying the Contingency Model of Leadership Effectiveness to elementary schools. However, the reversal of one pair of hypotheses and the lack of support for the other pair indicate the need for careful analysis and empirical investigation (rather than assumptions) in order to determine the location of schools of various kinds along all dimensions of the model, so that the contingency model might be more exactly and accurately applied to the study of school supervision.

When system rating of school effectiveness is used as the criterion, the results conform to the model. It is staff rating of principal effectiveness, however, not of school effectiveness, which correlates with LPC in conformity with the model. This appears to be due to the fact that when staffs do not accept the principal's

leadership, they differentiate between principal effectiveness and school effectiveness, and their ratings of school effectiveness cease to accord with system ratings of school effectiveness.

The functions of the variables measured by GA and LPC, carefully distinguished in the model, may not be interchanged. LPC scores measure a variable which operates in relation to effectiveness contingent on GA. Fiedler's reference to GA as a moderator variable is defined and limited by the evidence that, while it has a powerful effect on the perceptions and on the effectiveness of principal supervisory behavior, it does not appear to be directly related to school effectiveness. Because GA and LPC perform different functions in the model, their relations with effectiveness are not interchangeable.

The general assumption underlying the study was a proposition that permissive principals, when accepted as leaders, would, by fostering the professional self-actualization of teachers, lead the most effective elementary schools. The data not merely reject but reverse the effectiveness relationships hypothesized. Among elementary school principals who possess the personal power to influence their staffs, it is the directive principals whose schools are rated more effective.

The data indicate that at least one of two specific

assumptions concerning the categorization of elementary schools on the leader position power and task structure dimensions is unwarranted. It is likely that elementary school principals may be judged moderately high, not low, on leader position power, and that elementary school task groups are located in Octants III and VII of the model. There is need for further investigation to judge and scale schools along these two dimensions of the model.

These findings have interesting implications for elementary school leadership. They suggest that the pattern of control appropriate to elementary school staffs more nearly approximates that exercised by army officers than that exercised by chairmen of boards of directors. They also imply that elementary school principals whose leadership is accepted by their staffs might confidently assume their role and exercise the authority of their position, but that those whose leadership is not accepted would best refrain from vigorous leadership.

REFERENCES -- CHAPTER X

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- (2) Guilford, J. P. Fundamental Statistics in Psychology and Education, New York: McGraw-Hill Book Co., 1964.

CHAPTER XI

STAFF COMMITMENT AND SATISFACTION IN RELATION TO THE CONTINGENCY MODEL VARIABLES

In reviewing the literature from which the study was developed, it was proposed that as members of small groups internalize group values and goals, through both longer preparation and growth in personal commitment, greater autonomy of group members becomes both practical and necessary for effective group performance. Since the data suggest that elementary school staffs do not prize autonomy, can it be said that the more committed elementary school staffs, at any rate, are better able to realize their potential under permissive leadership? While Octants III and VII of the model appear to apply to elementary schools generally, might it be expected that Octants IV and VIII apply to schools where the staffs are above average in commitment? The data which follow may help to indicate the answers to these questions.

Hypothesis V was formulated to test a number of relationships in this area -- of LPC to effectiveness, contingent on commitment; of commitment to effectiveness, contingent on LPC; and of commitment to satisfaction, contingent on LPC.

The relationships tested were not statistically significant.

However, because the results of testing the earlier hypotheses had led the investigator to a new appreciation of the power of the GA index as a moderator variable, the hypotheses were re-tested with the sample being divided also on GA. The results of these tests were frequently significant and indicate the presence of a complex relationship between commitment and response to positive leadership, subject to group acceptance of the leader.

I. RELATING LPC AND EFFECTIVENESS,
CONTINGENT ON COMMITMENT

Hypothesis V.1 (a) proposed a positive correlation between LPC and effectiveness, when commitment is high. As may be seen from the results reported in Table XV, the correlations observed are neither significant nor consistent for the two measures of commitment and the two measures of effectiveness.

TABLE XV
RELATING LPC AND EFFECTIVENESS, CONTINGENT
ON COMMITMENT

LPC rho	Full Sample 26 schools	Half Sample. 13 Schools Divided on	
		Mean Staff TRA	Mean Staff Training
Mean System Rating of EFFECTIVENESS	-0.05	<u>High</u> 0.06	<u>High</u> -0.14
		<u>Low</u> -0.15	<u>Low</u> 0.08
Mean Staff Rating of EFFECTIVENESS	-0.22	<u>High</u> -0.12	<u>High</u> 0.15
		<u>Low</u> -0.21	<u>Low</u> -0.27

Hypothesis V.1 (b) proposed a negative correlation in those schools whose staffs scored below the median on commitment. The correlations observed show some consistent tendency to be negative, but are not statistically significant.

Hypothesis V.1 is not supported by the data.

Moderating the Relationships by GA

When GA intervenes, and the sample is partitioned jointly on GA and commitment, a remarkably consistent trend of correlations suggests that LPC correlates negatively with effectiveness when GA and commitment levels are consonant, but positively when GA and commitment levels are dissonant. This complex set of relationships is set out in Table XVI, followed by Figure 11, which presents a simplified summary of the trends of the relationships observed.

The sub-samples in Table XVI are unavoidably too small, and of the sixteen correlations none is significant by a two tailed test of significance. Nevertheless, two very low correlations excepted, all conform to a consistent pattern, the implications of which should not be ignored, but call for further investigation with larger samples.

The pattern suggests that directive leaders are effective when what they perceive as commitment is consonant with the actual level of staff commitment (i.e. they

TABLE XVI

RELATING LPC AND SCHOOL EFFECTIVENESS,
CONTINGENT ON GA AND STAFF COMMITMENT

Measure of Relationships: Spearman rho

COMMITMENT Level	Criterion	GA		Mean School Effectiveness Rating by
		LOW	HIGH	
HIGH	Mean Staff Training	0.10 N:4	-0.97 N:5	System
		0.63 N:4	-0.36 N:5	Staff
	Mean Staff TRA Score	0.34 N:5	-0.77 N:7	System
		-0.10 N:5	-0.47 N:7	Staff
LOW	Mean Staff Training	0.12 N:6	0.10 N:5	System
		-0.89 N:6	0.30 N:5	Staff
	Mean Staff TRA Score	-0.30 N:5	0.50 N:3	System
		-0.90 N:5	0.50 N:3	Staff

accurately identify low committed staffs as low committed, or high committed staffs as high committed). However, when the principal misperceives the level of commitment of his staff, then it is permissive leadership that appears to be more effective. GA may conceivably be explained as the

		<u>GA</u>	
		Group Acceptance of Leader Principal's Perception of Staff Commitment	
		Low	High
<u>COMMITMENT</u>	High	<u>Dissonance</u> positive correlations	<u>Consonance</u> negative correlations
	Low	<u>Consonance</u> negative correlations	<u>Dissonance</u> positive correlations

FIGURE 11

MODEL RELATING LPC AND SCHOOL EFFECTIVENESS,
CONTINGENT ON GA AND STAFF COMMITMENT

leader's perception of group commitment, the accuracy of which determines the likelihood of his directions being considered appropriate and therefore acceptable. This is, in effect, suggesting that the contingency model may be a framework for specifying the boundaries of perceived legitimacy of directions, boundaries which may be identified at least along dimensions of task complexity, leader power,

leader influence, and possibly leader influence as a function of appropriateness of leader perception of group commitment. In terms of schools, if the principal's assessment of staff commitment is accurate, then his directions, presumably pitched to his staff's level of commitment, are acceptable. If his assessment is inaccurate, then the more directive he is the more he alienates a staff which does not regard his directions as legitimate.

Some other implications of the model (Figure 11) may be considered if the model is split horizontally, and then vertically.

When commitment is high (the two quadrants in the top half of the model), the findings concerning application of the contingency model to elementary schools are supported. That is, commitment seems to re-inforce the applicability of Octants III and VII of the contingency model to elementary schools. Yet when commitment is low, the relationships conform to those originally hypothesized (Octants IV and VIII). This finding seems to administer the coup de grace to the investigator's theoretical expectation that increasingly committed groups (as defined by the two measures used in the study) require decreasingly directive leadership. The data clearly imply that with increased commitment of group membership, directive leadership becomes increasingly effective.

Looking at the two quadrants in the right hand half of Figure 11, where leadership is accepted by the group, the indications are that the more directive accepted elementary school principals are, the more effective they are with committed staffs, the less effective they are with the less committed staffs. But (left hand half of the model), if the principal's leadership is not accepted, then the more directive principals are, the more effective they are with less committed staffs, the less effective they are with more committed staffs.

It should also be noted that, though the contingency model did not fit elementary schools when staff rating of school effectiveness was the criterion, staff rating of school effectiveness and system rating of school effectiveness are consistent criteria in Table XVI. Perhaps the failure of staff rating of school effectiveness to relate to the contingency model is associated with the way in which staff commitment moderates staff perception of school and principal.

II. RELATING COMMITMENT AND EFFECTIVENESS,

CONTINGENT ON LPC

Hypothesis V.2 (a) proposed a positive correlation between commitment and effectiveness, under high LPC principals. The correlations observed (Table XVII) are neither consistent nor statistically significant. The

TABLE XVII

RELATING COMMITMENT AND EFFECTIVENESS,
CONTINGENT ON LPC

Measure of Relationships: Pearson r

TRA related to	Full Sample	When LPC is	TRAINING related to	Full Sample	When LPC is
SYSTEM RATING OF SCHOOL EFFECTIVENESS	0.05	<u>High</u> 0.16	SYSTEM RATING OF SCHOOL EFFECTIVE- NESS	-0.14	<u>High</u> -0.05
		<u>Low</u> -0.07			<u>Low</u> -0.23
STAFF RATING OF SCHOOL EFFECTIVENESS	0.21	<u>High</u> 0.26	STAFF RATING OF SCHOOL EFFECTIVE- NESS	-0.23	<u>High</u> -0.17
		<u>Low</u> 0.20			<u>Low</u> -0.26

Full sample is 26 schools, sub-samples are 13 schools.
Commitment measures were mean school TRA scores and
mean school training.
Effectiveness measures were mean staff and system
ratings of school effectiveness.

hypothesis is not supported by the data.

Hypothesis V.2 (b) proposed a negative correlation under low LPC principals. The correlations observed are neither consistent nor statistically significant. The hypothesis is not supported by the data.

The results of testing Hypothesis V.2 fail to provide evidence to reject a null hypothesis. The pattern of complementary positive and negative correlations, characteristic of the contingency model, does not occur. There is no significant variation in the correlations between commitment and effectiveness to support the expectation that the more committed staffs would be more effective under permissive principals.

It may be noted that in all four combinations of the two commitment and two effectiveness criteria, and particularly when system effectiveness is the criterion, when the sample is split on the basis of LPC, there is slight trend in the direction hypothesized. That is, the correlation between commitment and effectiveness becomes more strongly positive under a permissive principal (or less strongly negative when training is used as the criterion of commitment). It may also be noted that TRA appears to be more positively correlated with effectiveness than is training.

Moderating the Relationships by GA

As with most other relationships, interposing the GA index yielded results which were much more meaningful, although for Hypothesis V.2 this was true only when TRA was used as the criterion of commitment. The relationships between TRA and effectiveness, as moderated by GA, are therefore isolated and presented first, in Tables XVIII and XIX.

TABLE XVIII
RELATING TRA AND EFFECTIVENESS, CONTINGENT
ON GA AND LPC

TRA RELATED to	GA level	Under HIGH LPC Principals	Under LOW LPC Principals
SYSTEM Rating of EFFECTIVE- NESS	High	$r=+0.34$ $N=6$	$r=+0.56$ $N=4$
	Low	$N=2$	$r=-0.80^*$ $N=9$
STAFF Rating of EFFECTIVE- NESS	High	$r=+0.23$ $N=6$	$r=+0.57$ $N=4$
	Low	$N=2$	$r=-0.01$ $N=9$

* Significant beyond the .01 level (two tailed test)
Measures were mean school effectiveness ratings and
mean staff TRA scores.

Due to the smallness of the sub-samples, only the relationships within schools under low LPC principals are complete. The TRA-effectiveness relationships observed in

schools led by low LPC principals vary, contingent on GA, in a pattern which is fully consistent with the relationships reported in Table XVI. Directive principals who perceive staff commitment as high supervise more effective schools when staff commitment does happen to be high, less effective schools when staff commitment is low (+0.56). When directive principals perceive staff commitment as low, then the correlations are reversed -- it is the staffs which actually are relatively low on commitment which are more effective (-0.80). These observations re-inforce the impression that it is consonance and dissonance of GA and commitment that are the most important factors governing the relationships between commitment and effectiveness.

This impression was strengthened by the fact that the only two correlations available for schools under high LPC principals (+0.34 and +0.23, Table XVIII) were in the same direction as the matching correlations under low LPC (+0.56 and +0.57). It appeared that in fitting supervision to staff commitment, staff acceptance of the principal, and perhaps the way in which the principal's supervisory behavior implies his assessment of staff commitment, are more significant factors than the principal's degree of directiveness. That is, perhaps GA is more important than LPC, in relating TRA to effectiveness.

These inferences were checked by partitioning the sample on GA only but not on LPC, and the correlations

observed are tabulated in Table XIX. The striking variation in correlations with system ratings of school effectiveness supports the inferences already made from the data of Tables XVI and XVIII. The implication is that when the level of staff commitment as perceived by

TABLE XIX

RELATING TRA AND EFFECTIVENESS,
CONTINGENT ON GA ONLY

Measure of Relationships: Pearson r

Mean School TRA Scores Related to	Full Sample	GA Level	
		High	Low
Mean SYSTEM Rating of School EFFECTIVENESS	-0.01	0.44	-0.76*
Mean STAFF Rating of School EFFECTIVENESS	0.16	0.28	-0.02

* Significant beyond the .01 level (two tailed test)
full sample is 20 schools; sub-samples are 10 schools.

the principal (GA) is consonant with the level of staff TRA scores, then the school tends to be rated higher on effectiveness than when GA and TRA are dissonant, regardless of LPC. This inference points up the need for further investigation of the relationship between staff task-orientation, and the principal's perception of the staff's task-orientation, as variables interacting in relation to the actualization of

staff potential. Certainly, the pattern of correlations observed adds more weight to the evidence suggesting that GA reflects an extremely powerful variable moderating the effectiveness of principal and staff as a team.

Training, however, does not appear to relate to effectiveness, contingent on GA and LPC, or on GA alone, in any fashion comparable to that observed for TRA. The correlations observed are tabulated in Table XX.

TABLE XX

RELATING TRAINING AND EFFECTIVENESS CONTINGENT
ON GA ALONE, AND ON GA AND LPC JOINTLY

Measure of Relationships: Pearson r

Mean Staff Training Related to	Contingent on GA alone	Contingent on GA and LPC Jointly	
		Under High LPC Principals	Under Low LPC Principals
Mean System Rating of School Effectiveness	<u>High</u> N:10 -0.29	N:6 -0.57	N:4 -0.47
	<u>Low</u> N:10 -0.23	N:2	N:9 -0.38
Mean Staff Rating of School Effectiveness	<u>High</u> N:10 -0.36	N:6 -0.39	N:4 -0.47
	<u>Low</u> N:10 -0.38	N:2	N:9 -0.48

While GA appears to moderate considerably the effectiveness correlations of the variable measured by TRA scores, it does not have this effect on the variable measured by years of training, as may be observed by comparing Table XX with Tables XVIII and XIX.

To explain the differential effects of GA on the two commitment measures, it seems necessary to examine, not the training criterion, but the distinctive nature of the TRA instrument. Perhaps staffs which feel most strongly about professional initiative and autonomy experience a threat to their values which inhibits performance when they do not have confidence in the leadership of their principals.

III. RELATING COMMITMENT AND SATISFACTION, CONTINGENT ON LPC

Hypothesis V.3 (a) proposed a positive correlation between teacher commitment and satisfaction under permissive principals. The correlations observed (Table XXI) fail to support the hypothesis. A statistically significant negative correlation indicates that the reverse of the hypothesis may be the case -- that there is a tendency for the more highly trained teachers to be less satisfied, the less well trained teachers to be more satisfied, under permissive principals. This reversal of Hypothesis V.3 (a) is consistent with the general reversal of the hypotheses underlying the study,

implying that it is Octants III and VII of the contingency model, not Octants IV and VIII, which apply to elementary schools.

TABLE XXI
RELATING TEACHER COMMITMENT AND SATISFACTION,
CONTINGENT ON LPC

LPC Level	Pearson correlations with	
	TRAINING	TRA
When schools are not differentiated	$r=-0.14$ $N=298$	$r=-0.04$ $N=299$
Under high LPC	$r=-0.20^*$ $N=150$	$r=-0.13$ $N=151$
Under low LPC	$r=-0.08$ $N=148$	$r=+0.05$ $N=148$

* Significant beyond the .05 level (two tailed test)

Hypothesis V.3 (b) proposed a negative correlation under directive principals. The correlations observed are insignificant, and do not support the hypothesis.

Hypothesis V.4 tested the same relationships as Hypothesis V.3 but by school staff units instead of by individual teachers. None of the correlations (Table XXII) was statistically significant, nor did they support the trend of the correlations observed in Table XXI.

Hypothesis V.4 (a) proposed a positive correlation under permissive principals. The correlations observed are

neither significant nor consistent. The hypothesis is not supported by the data.

Hypothesis V.4 (b) proposed a negative correlation under directive principals. The correlations observed are negative, but are not statistically significant. The hypothesis is not supported by the data.

Little in the way of conclusions can be drawn from the non-significant and conflicting results of testing Hypotheses V.3 and V.4.

TABLE XXII
RELATING STAFF COMMITMENT AND SATISFACTION,
CONTINGENT ON LPC

LPC Level	Pearson correlations with	
	TRAINING	TRA
When schools are not differentiated	$r=-0.06$ N=26	$r=-0.19$ N=26
Under high LPC	$r=+0.14$ N=13	$r=-0.18$ N=13
Under low LPC	$r=-0.12$ N=13	$r=-0.20$ N=13

Moderating the Relationships by GA

When the sample was partitioned on both GA and LPC (Table XXIII) it yielded little additional information as to how variation in teacher and staff commitment relate to reaction to the contingency model variables. The only

TABLE XXIII

RELATING COMMITMENT AND SATISFACTION,
CONTINGENT ON GA AND LPC

Measure of Relationships: Pearson r

When LPC is	When TRAINING is Commitment criterion		When TRA is Commitment Criterion		Correlating scores of
	High GA	Low GA	High GA	Low GA	
High	-0.18 N:60	-0.14 N:17	-0.11 N:60	-0.40 N:17	Teachers
High	0.17 N:6	N:2	-0.39 N:6	N:2	Staffs
Low	-0.10 N:49	0.06 N:84	0.27* N:50	-0.09 N:84	Teachers
Low	-0.30 N:4	-0.06 N:9	0.55 N:4	-0.52 N:9	Staffs

* Significant beyond the .05 level (two tailed test)

significant correlation indicates that under directive principals whose leadership they accept, teachers scoring high on the TRA instrument tend to be more satisfied than teachers scoring low. This correlation complements the finding, from testing Hypothesis V.3 (a)¹, that the more highly trained teachers tend to be less satisfied under permissive principals. It also supports the general trend of the evidence examined in this chapter, which suggests that the LPC-effectiveness correlations predicted by Octants III and VII of the contingency model are strengthened as elementary school staff commitment increases.

¹See p. 174 supra.

Otherwise, the results of this attempt to relate commitment and satisfaction do not yield any consistent information. This may be due to the non-specific nature of the satisfaction measure, and to the fact that training and TRA scores appear to reflect quite different variables, both of which are only assumed to relate to commitment. Evidently, the validity of the two measures of commitment used, and the validity of relating them to a measure of satisfaction with teaching position, have yet to be conclusively demonstrated.

IV. SUMMARY

In answer to the question posed at the beginning of Chapter XI, this study produces little evidence to support the general theoretical view that the more committed elementary teachers need greater autonomy if they are to be more effective and more satisfied with their task situation.

On the contrary, there is consistent evidence, within the framework of the contingency model employed, that, given good principal-staff relations, directive leadership is more effective with the more committed staffs than with the less committed staffs. The discovery that it is Octants III and VII of the contingency model that apply to elementary schools postulates a contingency model that appears to be re-inforced in the case of more committed staffs, reversed only in the case of less committed staffs. Where staffs are less

committed, then the application of Octants IV and VIII of the model appears to be warranted.

In relating staff commitment directly to school effectiveness, GA moderates the relationships markedly when TRA is the criterion of commitment, but not when training is the criterion. The evidence suggests that the principal's perception of staff commitment fits or does not fit staff task relevant attitudes, so either releasing or inhibiting the staff potential associated with the values measured by the TRA instrument.

The way in which the GA variable moderates the relationships between LPC and effectiveness, contingent on commitment, and between commitment (TRA only) and effectiveness, highlights the importance of the accuracy of the principal's sensitivity to staff attitudes and commitment as a condition of the effectiveness of more directive leadership.

LPC and GA do not appear to moderate in a consistent way the relationships between the commitment and the satisfaction of individual teachers or of school staffs. However, the two statistically significant relationships observed are consistent with relationships observed throughout the study. The more highly trained teachers tend to be less satisfied, the less well trained teachers more satisfied, under permissive principals. Teachers who score high on the

TRA instrument are more satisfied, teachers who score low are less satisfied, under directive principals whose leadership they accept. If these relationships are interpreted with emphasis placed on the function of GA as an index of principal perception of staff commitment, then, when the principal rates staff commitment high, teachers who score high on the TRA instrument are more satisfied, but teachers whose TRA level does not accord with the principal's perception of staff commitment are less satisfied.

The inferences made in Chapter XI are based on data, from small sub-samples, which are only occasionally statistically significant. The inferences are therefore speculative, and may only be regarded as pointers for the formulation of hypotheses to guide further research. There is need to investigate further the relationships between teacher values and training and the contingency model variables measuring the principal's task orientation and staff-principal mutual perception variables.

CHAPTER XII

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

I. SUMMARY

This first section of the chapter reports the results of testing the five hypotheses.

Hypothesis I

The first set of hypotheses was concerned with defining the Least Preferred Co-worker (LPC) scores of elementary school principals.

Hypothesis I.1 proposed that high LPC scores would be related to the employment of permissive supervisory practices, and that low LPC scores would be related to the employment of directive supervisory practices.

The hypothesis is only partly supported by the data. Low LPC scores were significantly related to longer classroom visits, to the practice of more frequently calling teachers to the office, and to greater prescription of teaching methods. Low LPC scores were not, however, related to more frequent visitation or more frequent interruption of lessons by use of the Public Address System. High LPC principals do not employ such permissive supervisory practices as allowing teachers to initiate more matters at

staff meetings, giving teachers a greater share in deciding school matters, or appointing more staff committees.

Contrary to hypothesis, it was the high, not the low LPC principals, who were significantly more active during classroom visitation.

Hypothesis I.2 proposed that there would be no relationship between LPC scores and emphasis on instructional matters at staff meetings.

The null hypothesis proposed is not rejected by a two tailed test of the significance of the relationship observed. However the relationship observed is close to significance, and the result should be evaluated in the light of the results of testing Hypothesis I.4.

Hypothesis I.3 proposed that school effectiveness would be related to the employment of participatory leadership practices and to emphasis on instructional matters, while reduced school effectiveness would be related to closer supervision.

The hypothesis is only partly supported by the data. School effectiveness was related to employment of the three participatory leadership practices listed, and to emphasis on instructional matters. However, reduced school effectiveness was not related to closer supervision.

Contrary to hypothesis, two practices representing close supervision -- more frequent interruption of lessons by use of the Public Address System, and more frequent classroom visitation -- significantly distinguished the more effective from the less effective schools.

Hypothesis I.4 proposed that among principals of schools rated above the median on effectiveness, high LPC scores would be related to permissive supervisory practices, and low LPC scores would be related to directive supervisory practices.

The hypothesis is only partly supported by the data. High LPC principals of effective schools do not appear to employ any of the three permissive supervisory practices listed. Low LPC principals of effective schools do appear to interrupt lessons more by using the Public Address System, to pay longer classroom visits, and to call teachers to the office more frequently. However, there is no statistically significant evidence that they visit classrooms more frequently; are more active while visiting classrooms, prescribe teaching methods to a greater extent, or apply more pressure on teachers.

Contrary to hypothesis, it is the low LPC principals who allow more matters to be initiated by teachers at staff meetings.

Hypothesis I.5 proposed a positive correlation between LPC scores and principals' global ratings of their staffs on commitment.

There was no correlation between the two variables. The hypothesis is not supported by the data.

Hypothesis II

This pair of hypotheses was concerned with defining the GA categories of elementary school staffs.

Hypothesis II.1 proposed a positive correlation between GA categories and staff ratings of principals on effectiveness.

The correlation observed was not statistically significant. The hypothesis is not supported by the data.

Hypothesis II.2 proposed a zero correlation between GA categories and staff ratings of satisfaction.

The correlation observed was not statistically significant. The null hypothesis proposed is not rejected by the data.

As the two parts of Hypothesis II are only reciprocally significant, the results of testing Hypothesis II fail to define the distinctive character of the GA variable.

Hypothesis III

This pair of hypotheses was concerned with inter-relating principal (LPC) and staff (GA and satisfaction)

interpersonal perception variables.

Hypothesis III.1 proposed a positive correlation between LPC and satisfaction, under high GA.

The correlation observed was not statistically significant. The hypothesis is not supported by the data.

Hypothesis III.2 proposed a negative correlation between LPC and satisfaction, under low GA.

The correlation observed was not statistically significant. The hypothesis is not supported by the data.

The correlations observed under Hypothesis III.1 and III.2 are contrasting in sign, as predicted. However, the contrasting signs are the reverse of those predicted.

Hypothesis IV

This pair of hypotheses was concerned with testing the predictive validity of the contingency model of leadership effectiveness in elementary schools.

Hypothesis IV.1 predicted a positive correlation between LPC and effectiveness under high GA, and a negative correlation under low GA.

The correlations observed were not statistically significant. The hypothesis is not supported by the data.

The correlations observed are contrasting in sign, as predicted. However, the contrasting signs are the reverse of those predicted.

Hypothesis IV.2 proposed a positive correlation between GA and effectiveness under high LPC, and a negative correlation under low LPC.

The correlations observed were not statistically significant. The hypothesis is not supported by the data.

Hypothesis V

This set of hypotheses was designed to test the relationships between directive leadership, staff commitment, staff satisfaction, and school effectiveness.

Hypothesis V.1 proposed a positive correlation between LPC and school effectiveness where staff commitment was high, and a negative correlation where staff commitment was low.

The correlations observed were not statistically significant. The hypothesis is not supported by the data.

Hypothesis V.2 proposed a positive correlation between commitment and effectiveness under high LPC and a negative correlation under low LPC.

The correlations observed were not statistically significant. The hypothesis is not supported by the data.

Hypotheses V.3 and V.4, referring respectively to individual teachers and to school staffs, proposed positive correlations between commitment and satisfaction under high LPC and negative correlations under low LPC.

In no case was a statistically significant correlation, of the sign predicted, observed. The hypothesis is not supported by the data.

One statistically significant correlation, contrary to the direction predicted, was observed. This was a low, negative correlation between teacher commitment and satisfaction, under high LPC principals.

In general the individual formal hypotheses receive little support from the data. However, the pattern of relationships, even when not statistically significant, and the consistency of certain factors, provide considerable, often strong, pointers to interpretation which could guide further research.

II. CONCLUSIONS

The study applied the Contingency Model of Leadership Effectiveness and related instruments to elementary school supervision, and found both model and instruments valid for conceptualizing and measuring staff-principal interaction in relation to effectiveness.

The Least Preferred Co-worker (LPC) instrument scales a personality variable which is related to the extent to which the principal is perceived by staff members as frequently exercising controlling actions in supervision. Low LPC principals appear to their teachers to be more instruction-oriented, are more prescriptive and vocal in

supervision, and supervise their teachers' instructional activities more closely than do high LPC principals. To this extent they may be described as being more directive, but being directive should not be interpreted as being repressive. The controlling activities of low LPC principals may extend to more vigorous efforts to involve teachers in discussing and deciding on school problems. Certainly, their teachers believe themselves to initiate discussion of a greater proportion of matters at staff meetings and to have a greater share in making school decisions. Practices which distinguish low LPC from high LPC principals tend to be those which mark the supervisory behavior of the principals of elementary schools that are rated more effective. High LPC principals employ all the above practices less frequently, but do participate more in class activities during supervisory visits, and this practice may reflect the greater need, reported in the literature, of high LPC personalities for relaxed interpersonal relations.

While the principal's rating of his least preferred co-worker was found to be related to supervisory behavior as described, it was found to be independent of the principal's rating of his staff as a group on commitment and on staff climate, and also of his staff's ratings of their own satisfaction and of principal effectiveness.

The Group Atmosphere (GA) instrument, though also

completed by the principal, measures a variable which is independent of that measured by the LPC instrument. It reflects the affective orientation of staff towards the principal -- whether the principal has achieved rapport with his staff. It is a Janus-faced instrument which reflects, on the one hand, the principal's perception of staff climate and commitment, and on the other, staff acceptance of the principal's leadership -- whether or not the staff identifies with the principal, and identifies the principal with the school. Principals appear to interpret the staff attitudes to them, reflected by GA, as staff commitment. Yet, since GA categories do not appear to be related to staff commitment, it appears likely that principals tend to misperceive leader orientation as task orientation.

Because it reflects the crucial dimension of staff orientation towards the principal, the GA variable moderates strikingly the staff's perceptions of and orientation to both principal and task. The staffs which are most favourably oriented towards their principals rate as more effective and are more satisfied under principals who are positive, directive, low LPC leaders. Staffs which are not so favourably oriented towards their principals rate as more effective and are more satisfied under high LPC principals -- i.e. those who are less directive in leadership.

LPC and GA link the principal's manifest task orientation with his power to influence his staff in a way which limits the supervisory behavior acceptable to the staff. Since the elementary principal's LPC score is related to the extent to which he leads in a positive way, then both the influential principal who supervises vigorously and the principal lacking influence who refrains from vigorous supervision will tend to be rated effective by staffs which are satisfied under their leadership. On the other hand, the influential principal who does not give clear and obvious leadership, and the principal lacking influence who tries to lead forcefully, will tend to be rated less effective by staffs which also tend to rate themselves low on satisfaction.

These trends of staff perceptions of principal effectiveness in relation to the possible combinations of positive/withdrawing principal personality with more/less influential principal personality are supported when the Contingency Model of Leadership Effectiveness is tested against an independent criterion -- system rating of school effectiveness.

The contingency model is valid for elementary schools if, as appears likely by inspection, categorization of elementary schools along the dimensions of task structure and leader position power locates elementary school task groups in Octants I - III and V - VII of the model (probably

Octants III and VII). However, this assumption requires checking by measuring the relative task structure of elementary schools and the relative position power of elementary school principals.

Both instruments (LPC and GA) scale, along almost identical scales, the principal's perceptions of the task relevant attitudes of co-workers. Yet, because they are ratings of different subjects, they measure different and independent, though complementary, variables. One measures the principal's perceptions of the attitudes of his least preferred co-worker, the other, his perceptions of the attitudes of his staff as a whole. Principals who rate the group favourably and do not perceive important differences in the task orientations of group members lead staffs which are relatively less effective. Principals who rate the staff favourably but their least preferred co-worker unfavourably (i.e. attach importance to differences in task orientation), tend to lead effective schools. Principals who rate both staff and least preferred co-worker relatively unfavourably tend to be unsuccessful in their leadership efforts. However, if they perceive staff climate as moderately poor, but are not too concerned about differences in the task orientation of individual teachers, then their schools tend to be relatively effective.

The evidence concerning the application of the contingency model to schools indicates, contrary to hypothesis,

that it is the style of leadership appropriate for army officers that is most effective in elementary schools where the principal's leadership is accepted.

The results of testing the contingency model in schools indicate that the functions of GA and LPC, in relation to effectiveness, may not be exchanged. The extent to which the principal leads in a positive way correlates with effectiveness contingent on staff acceptance of his leadership. However, the converse does not apply. Staff acceptance of the principal does not correlate with effectiveness, contingent on supervisory behavior.

The findings concerning the relationship of teacher commitment to the contingency model may be regarded as tentative only, since partitioning the sample on one more dimension yielded sub-samples from which it was difficult to record statistically significant indices.

Teacher commitment does not appear to interact directly with supervisory behavior in relation to effectiveness. However, if commitment is interposed as a fourth variable in the contingency model, then it appears to moderate the LPC-effectiveness relationships consistently, but in a manner contradicting that hypothesized at the outset of the study.

Among the more committed staffs, supervisory style continues to relate to effectiveness in conformity with the pattern of army leadership found to apply to elementary

schools. The more committed staffs give no indication of performing better under a style of supervision which gives them greater autonomy. It is among the less committed staffs that the patterns of effective leadership originally hypothesized to apply to elementary schools appear to be present. That is, the more directive principals whose leadership is not accepted appear to be more effective only when staffs are relatively low on commitment.

These indications may be stated in another way. It is possible that principal directiveness is correlated with school effectiveness, so long as he perceives staff commitment (whether high or low) accurately. However, among principals who misperceive staff commitment, it is the permissive principals whose schools are more effective.

There is some indication that the accuracy of the principal's perception of the relative level of staff commitment is related to the effectiveness of staffs, and that staffs whose commitment the principal misperceives are less effective. There is also some indication that the more committed teachers are more satisfied under directive principals whose leadership they accept, less satisfied under permissive principals. In general, the need for autonomy among teachers does not appear to be related to commitment, but is related to whether supervision is offered by an acceptable leader. When supervision is acceptable, it does not appear to conflict with

autonomy needs. This indication may help to explain apparently ambivalent teacher attitudes towards autonomy.

III. IMPLICATIONS

For Research in Educational Administration

Demonstration of the power of the concepts, conceptual model, and instruments developed by Fiedler and his associates, and of their validity for elementary schools, is considered to be the most significant outcome of the study reported.

The concept that the effective leader provides clear and unambiguous leadership, and the associated concept that he must be acceptable to the group if his directions are to be effective, are almost self-evident, yet often overlooked in the discussion of leadership. The availability of extremely simple, quickly-administered instruments to measure these variables, and of a valid model to inter-relate them, provides research tools with possibilities of extensive application to research into school leadership.

Quite apart from the model, an instrument such as the GA measure, by isolating for research schools with a clearly superior or clearly inferior level of principal-staff affective relations, makes possible a controlled analysis and evaluation of variation in staff reaction to leader behavior variables as measured by a number of recognized instruments. By taking account of an often neglected but fundamental dimension of leadership, it may

be used as a ready and effective tool for helping to explain and understand the frequently contradictory results which tend to weaken confidence in the validity and power of measures. For example, the fact that system and staff ratings of school effectiveness correspond when schools operate under high GA, but not under low GA, helps to explain when and what kind of effectiveness ratings are valid, when they may and when they may not be relied upon.

It is likely that the use of the GA concept and instrument in the analysis of other problems of leader behavior will yield new insights into measurement variation previously attributed to lack of validity or reliability of instruments, or to chance sampling variation. If so, then it will be of value in the quest for the more sensitive and better informed use of research instruments in the study of educational administration.

The LPC instrument, completed by one person in a few minutes, is so effortless and economical, yet so close to tapping dimensions such as initiating structure and production emphasis, normally measured with considerably more effort, that it could conveniently be included as a monitor in the design of studies concerned with leader behavior and school climate.

Fiedler's research focuses attention on the power of perception. The contingency model hinges on the meshing

of staff and principal perceptions of each other and of the task. The significant factors are principal perception of individual teachers in the light of task requirements, and of staff commitment and attitudes in the light of an apparently sub-conscious awareness of degree of staff support; and staff perception of principal in terms of warmth of affective links. The power of perception as a moderator of objectivity is evident in both the principal's tendency to misperceive staff commitment, and the staff's inaccurate, presumably subjective, appraisal of school effectiveness under low GA (but not under high GA).

For Elementary School Supervision

In considering the implications of the contingency model for the practice of supervision in elementary schools, it is important to be aware of which aspects of the school's tasks the model may be valid for (and which not).

Octants III and VII of the model appear to be valid for the analysis of some determinants of the effectiveness of elementary school principals. The question that has not been answered is, "Effectiveness with respect to what?" When they consider effectiveness, school system and school administrators, and teachers themselves, may be thinking in terms of adequacy in performing all the administrative functions of the school. There is no guarantee that achievement of the instructional goals of the school, as a

joint product of principal and staff, is the major criterion when they assess effectiveness. While the administrative activities of the school are relatively highly structured, the instructional goals are far more ambiguous. If the way in which respondents in the study conceived effectiveness referred mainly to the school's administrative function, rather than to instructional goals, then the observed correlations fit Octants I - III and V - VII of the model in relation to a situation where the task structure of teaching has been artificially restricted and is inappropriately high. If this be the case, then directive supervision may well be ineffective in schools where the major concern of principal and teachers is the perfection of co-ordinated instructional activities.

By scaling principal supervisory activity and relating it to staff acceptance and to effectiveness, the application of the Fiedler model to schools contributes information of some weight to assist in the resolution of the debate over the virtues of "democratic" versus "directive" school leadership. It is evident from the results that these and similar terms set up a false dichotomy that was to some extent attached to the concept of a directive-permissive continuum proposed at the outset of the study.

Effective elementary school principals are "democratic" to the extent that they involve their teachers in discussing and deciding, but this is far from surrendering or foregoing

leadership. The evidence suggests that it is just those leaders who are most active in assuming the formal leader role who are most likely to involve their teachers in planning. Not only do they involve staff in decisions, but they may well play a positive and obvious role of leader in insisting that all teachers participate in deliberation. Certainly they assume the role of leader quite clearly in directing staff attention towards instructional matters and the details of instruction. To this extent effective elementary school principals may not be placed at either of the dialectical extremes; rather, they select the practices likely to ensure both correct task performance and well motivated teamwork, then apply these with assurance, confidence and vigour. The study appears to have identified, unexpectedly, directive-democratic principals.

However, the best ideas are of little practical value if their source is not acceptable. So, while the principal who feels positive that he has a good staff may be advised to carry out fully the role of leader, the principal who is not so sure of his staff might well be advised to refrain from taking the initiative, might best rely on staff initiative for results.

Perhaps the most important service the model can perform for principals is to discriminate clearly between two variables which they tend to confuse. Since GA and LPC

are independent and operate in a complementary fashion, the not uncommon expectation that staff support is associated with degree of leadership appears to be based on a misconception. Since effectiveness and efficiency are complementary, not interchangeable, the principal who lacks efficiency might concentrate on establishing a good level of rapport with his staff. While permissive leadership is more likely to make his school effective, by relying on staff initiative, it will not improve the level of his affective relations with his staff.

The indications concerning the need for accurate principal perception of staff commitment suggest that principals may well give attention to ways of making more objective assessments of staff commitment. They need perhaps to be aware of the tendency to make a subjective assessment of commitment, expressing an unrecognized sensitivity to degree of staff support. The principal who wished to be sure of evaluating staff commitment accurately would need to give close attention to the values of his teachers and to the norms of his staff as a group. He would have to be ready to give close and systematic attention to such values as are embodied in the TRA instrument, and willing to recognize teacher commitment to them, rather than dismiss values which may be foreign to him as representing lack of commitment.

III. RECOMMENDATIONS FOR FURTHER RESEARCH USING THE CONTINGENCY MODEL AND ASSOCIATED INSTRUMENTS

The study reported raises more questions than it answers, but if, as the results appear to indicate, the model may be applied more extensively to research into educational administration, then some of the questions need to be answered in order that model and instruments may be used with greater assurance in future research.

Scales are available for measuring the relative task structure and leader position power of task groups, and these need to be applied to elementary schools as a check on the assumptions made in Chapter X. They might profitably be applied to secondary schools also, to see if the location in the model of secondary school task groups, and therefore the degree of supervision most effective, differs from that of elementary schools. Since Fiedler's research investigated the effectiveness of leadership in small groups, caution should be exercised in applying the model to large secondary schools, where perhaps the subject department would be the most appropriate unit.

Although the data give no support to the linking of commitment with need for autonomy, this relationship requires specific examination among highly committed teacher groups. Perhaps leadership effectiveness could also be

studied in experimental and demonstration schools, well endowed private schools, subject departments in selected senior high schools, and in university departments.

Future research will need to take precautions to prevent situations where leadership is divided from yielding results which obscure the relationships being investigated. While rigorous precautions were taken to screen from the present study elementary-junior high schools where leadership was partitioned between principal and assistant principal, none were taken to check the delegation of almost all supervision over the primary grades, a practice which the responses indicate was present in some schools. Other delegates whose leadership role might vary considerably include assistant principals and departmental heads.

The description of the supervisory behavior of high and low LPC principals requires further investigation and greater elaboration than is possible from the few pointers yielded by questionnaire responses. Such a study could well afford to be more open-ended, recording and comparing the supervisory behavior of selected high and low LPC principals at staff meetings and in general interaction with staff and with individual teachers. Techniques could include direct observation and the use of tape recorders, and open-ended descriptions of principal supervisory behavior by teachers who could be interviewed or asked to write descriptions.

Attention needs also to be given to the extent to which principal supervisory behavior, as measured by LPC, is fixed. If it is, then the prospects of reducing the coincidental nature of the effectiveness relationships between LPC and GA are reduced by at least half. If the trait may be modified only by long training, then the pre- and post-course supervisory behavior of educational administration students could be compared. In any case, the study of the variability of the trait measured by LPC would need to be a longitudinal study of the behavior of selected individuals.

Future studies could give attention to increasing the independence and therefore the validity of the GA and LPC instruments by avoiding the appearance of similarity occasioned by their joint administration in the present study. Independence of the two could be further increased by adopting Fiedler's device of asking the subject to rate the least preferred co-worker he has ever worked with (rather than the least preferred co-worker of his current group).

The application of the contingency model indicates that the least effective principal-staff teams in elementary schools are those in which GA and LPC are consonant. Presumably such teams would be more effective if either GA or LPC (but not both together) could be modified.

The nature of the group relationship measured by GA needs to be better understood before decisions can be made

about modifying the aspect of group relations it measures. Is it related to personal abilities to influence others? How easily might a principal modify his relationships with his staff? Does GA relate to leader-group value congruence? Does it vary in relation to principal/staff commitment? Is it purely a function of level of staff cohesion?

The model suggests that the effective leader leads positively, but only if he has group support. If the leader can increase neither his inclination to direct confidently towards group goals, nor his ability to influence his group, then school system administrators need to take elaborate precautions in selecting and posting leaders. If these leader characteristics may be varied, then leader training will need to be concerned with the means of changing the orientation of principals to instrumental and expressive communication.

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APPENDIX

APPENDIX A

Education Building,
University.
Tel. 439-8721, Ext. 651,

May 17th, 1966.

SUPERVISORY PRACTICES AND TEACHER ROLE ATTITUDES

A survey conducted under the guidance of the Department of Educational Administration, University of Alberta, Edmonton.

Dear Mr. _____,

I am writing to request your assistance in the preliminary stages of an investigation into the relationships between supervisory practices and teacher role attitudes. It is hoped that the findings will provide some general information about elementary school supervision that will be of value to school administrators. The report of the results of the investigation will make no reference to individual schools, principals or teachers and you are assured that your replies will be treated in strictest confidence. Schools have been allocated code numbers and I hold the only key. On twelve months study leave from an Australian Department of Education, I am in no sense concerned with local schools other than for study purposes.

The study has received the approval of the Edmonton Public School Board, as indicated by the attached circular. Your school is one of forty-eight* randomly selected from the system to provide an adequate sample for the study. Your assistance and that of your staff would be very much appreciated.

The purpose of this questionnaire is to compare schools on three related aspects of school climate. Responses to the three sections of this questionnaire will provide information on the basis of which approximately thirty-two schools, representing sample levels on the characteristics measured, will be selected for further study. Teachers at the schools selected for the final sample will be asked to complete a questionnaire on their role attitudes and on the

frequency with which they have experienced various supervisory practices. Responses to the teachers' questionnaires will then be analysed in conjunction with the responses of the principals to serve as a guide to those supervisory practices which are the most appropriate under different circumstances.

This, the first questionnaire, for principals, is not expected to take up more than ten minutes of your time. I would be grateful if you could find the time to complete the questionnaire within the next day or two. No further action can be taken to select the final sample until replies from all principals have been considered. Enclosed please find a stamped, addressed envelope for return of the completed questionnaire.

Should there be any queries about details I would be happy to explain, either by phone or by a visit to your school. I may be contacted by phone at my office, during office hours and most evenings.

Thank you for your assistance,

Yours sincerely,

Vincent McNamara

* It should be noted that, on the basis of responses to Part D of this questionnaire, sixteen Elementary-Junior High schools were eliminated from the sample.

Principals' Questionnaire, Part A

STAFF CLIMATE RATINGS

Use each of the following scales to rate your staff as a group. Put a circle around the number indicating your rating of the relative position of your staff on each scale.

As an example, the relative levels of friendliness may be expressed in words, as follows:

----8---:---7---:---6---:---5---:-----4---:---3---:
 Extremely Very Quite More More Quite
 friendly/friendly/friendly/friendly/unfriendly/unfriendly
 than ly than
 unfriendly/friendly

----2---:---1---
 Very Extremely
 unfriendly/unfriendly

Now rate your staff on the ten scales below. Do not bother to do more than circle the appropriate number on each scale.

e.g. Friendly--8--:(7)--6--5--4--3--2--1 Unfriendly

School Code Number _____

Helpful	--8--:-7--:-6--:-5--:-4--:-3--:-2--:-1--	Unhelpful
Enthusiastic	--8--:-7--:-6--:-5--:-4--:-3--:-2--:-1--	Unenthusiastic
Hostile	--1--:-2--:-3--:-4--:-5--:-6--:-7--:-8--	Supportive
Co-operative	--8--:-7--:-6--:-5--:-4--:-3--:-2--:-1--	Un-co-operative
Distant	--1--:-2--:-3--:-4--:-5--:-6--:-7--:-8--	Close
Cold	--1--:-2--:-3--:-4--:-5--:-6--:-7--:-8--	Warm
Quarrelsome	--1--:-2--:-3--:-4--:-5--:-6--:-7--:-8--	Harmonious
Self-assured	--8--:-7--:-6--:-5--:-4--:-3--:-2--:-1--	Hesitant
Interesting	--8--:-7--:-6--:-5--:-4--:-3--:-2--:-1--	Boring
Gloomy	--1--:-2--:-3--:-4--:-5--:-6--:-7--:-8--	Cheerful

Principals' Questionnaire, Part B

LEAST PREFERRED CO-WORKER RATINGS

Think of, but do not name, the person on your staff with whom you can work least well. Rate him/her on the following scales by circling the scale values in exactly the same way as you rated staff climate.

School Code Number _____

Quits easily	--1-:-2-:-3-:-4-:-5-:-6-:-7-:-8--	Keeps trying
Energetic	--8-:-7-:-6-:-5-:-4-:-3-:-2-:-1--	Tired
Casual	--1-:-2-:-3-:-4-:-5-:-6-:-7-:-8--	Dedicated
Practical	--8-:-7-:-6-:-5-:-4-:-3-:-2-:-1--	Impractical
Intelligent	--8-:-7-:-6-:-5-:-4-:-3-:-2-:-1--	Unintelligent
Calm	--8-:-7-:-6-:-5-:-4-:-3-:-2-:-1--	Upset
Confident	--8-:-7-:-6-:-5-:-4-:-3-:-2-:-1--	Unsure
Stable	--8-:-7-:-6-:-5-:-4-:-3-:-2-:-1--	Unstable
Softhearted	--8-:-7-:-6-:-5-:-4-:-3-:-2-:-1--	Hardhearted
Meek	--1-:-2-:-3-:-4-:-5-:-6-:-7-:-8--	Forceful
Responsible	--8-:-7-:-6-:-5-:-4-:-3-:-2-:-1--	Undependable
Immature	--1-:-2-:-3-:-4-:-5-:-6-:-7-:-8--	Mature
Bold	--8-:-7-:-6-:-5-:-4-:-3-:-2-:-1--	Timid
Ungrateful	--1-:-2-:-3-:-4-:-5-:-6-:-7-:-8--	Grateful
Impatient	--1-:-2-:-3-:-4-:-5-:-6-:-7-:-8--	Patient
Thoughtless	--1-:-2-:-3-:-4-:-5-:-6-:-7-:-8--	Thoughtful
Frank	--8-:-7-:-6-:-5-:-4-:-3-:-2-:-1--	Secretive
Careless	--1-:-2-:-3-:-4-:-5-:-6-:-7-:-8--	Careful
Easygoing	--8-:-7-:-6-:-5-:-4-:-3-:-2-:-1--	Quick-tempered
Boastful	--1-:-2-:-3-:-4-:-5-:-6-:-7-:-8--	Modest

Principals' Questionnaire, Part C

LEVEL OF STAFF COMMITMENT

On the basis of your past experience as a teacher and administrator, how highly would you rate your present staff on commitment to their profession?

- _____ (1) Exceptionally committed.
- _____ (2) Highly committed.
- _____ (3) Slightly above average on commitment.
- _____ (4) Slightly below average on commitment.
- _____ (5) Little commitment.
- _____ (6) No commitment.

Principals' Questionnaire, Part D

SPECIAL PROVISION FOR ELEMENTARY/JUNIOR HIGH SCHOOLS

As the study being undertaken is concerned with supervision and teacher role attitudes specifically in elementary schools, the assistant principal may be the administrator most concerned in some Elementary/Junior High Schools.

Would you please indicate on the following scale the proportion of the load of supervision of elementary classes that is carried by your assistant principal:

None	_____
0-25%	_____
26-50%	_____
51-75%	_____
76-100%	_____

School Code Number _____

If your assistant principal plays any part in supervision of elementary classes, please ask him also to complete a set of parts A, B, and C of the Principals' Questionnaire. A second set is attached for that purpose.

PLEASE RETURN THIS SHEET WITH THE COMPLETED PRINCIPALS' QUESTIONNAIRE(S) FOR YOUR SCHOOL

APPENDIX B

Education Building,
University,

May 27, 1966.

Dear Mr. _____:

I would like to thank you for your consideration in completing the Principals' Questionnaire for my study of Supervisory Practices and Teacher Role Attitudes.

On the basis of the information provided a representative sample of thirty-two schools has been selected for more intensive study. Your school has been included in the final sample and I would appreciate your continued support.

The second stage of the investigation requires each teacher at the selected schools to provide information sought in the Teachers' Questionnaire. Enclosed please find copies addressed to all members of your staff together with extra copies for teachers who may have been posted to your school since the Board published its list of teacher postings in November of last year.

In order to provide teachers complete assurance of anonymity in cases such as this, it is normal practice to ask the principal to nominate a staff member to be responsible for distribution of the questionnaires and envelopes, collection of the completed questionnaires in sealed envelopes and their return to the investigator. It would assist this study if you could adopt such a procedure.

Enclosed please find also a stamped, addressed envelope for return of the completed questionnaires.

Should there be any queries about details of the questionnaires, I would be willing to visit your school or to explain matters by telephone to you, to the teacher you nominate to collect the questionnaires, or to any teacher involved in the survey. My telephone number is 439-8721, Ext. 651.

Yours sincerely,

Vincent McNamara.

SUPERVISORY PRACTICES AND TEACHER ROLE ATTITUDES

A survey conducted under the guidance of the
Department of Educational Administration, University of
Alberta, Edmonton, Alberta.

Education Building,
University,
May 27, 1966.

Dear _____:

I would be grateful for your assistance in an investigation into the conditions governing the employment of various supervisory practices in schools. The study has received the approval of the Edmonton Public School System and your principal has kindly agreed to participate.

The purpose of the investigation is to study variation in supervisory practices in relation to teachers' role attitudes in the hope of gaining some insight concerning how best to adjust professional guidance to the needs of teachers. Results will be reported in general form only, without reference to specific schools, teachers or principals. You will note that the identification on this questionnaire is a coded identification of the school only, not of the individual teacher. You are assured that your replies will be treated in strictest confidence and used only for the purpose of providing information as a basis for theory of supervision.

Please answer the questions as frankly and as accurately as possible. I would appreciate it if you could find the time to complete the questionnaire within the next few days.

Please place the completed questionnaire in the envelope provided, seal it, and return it to the member of staff designated by the principal to receive the envelope. He will return all envelopes to me at the University.

Thank you for your assistance in the project,

Yours sincerely,

Vincent McNamara

A. ROLE ATTITUDES OF TEACHERS

This, the first section of the questionnaire, is designed to measure teachers' attitudes to their role in the school. The sixteen statements below express attitudes towards different aspects of the teacher's role. You are asked to express your reaction to each attitude. There are five possible reactions to each statement. They are:

Strongly Agree (SA)Disagree (D)Undecided (U)Agree (A)Strongly Disagree (SD)

For each statement circle the answer which indicates your reaction towards the attitude expressed.

School Code Number _____

- | | | | | | | |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---|---|---|----|
| 1. | It should be permissible for the teacher to violate a rule if it is felt that the best interests of the student will be served in doing so. | SA | A | U | D | SD |
| 2. | Unless a teacher is satisfied that it is best for the student, a teacher should not do anything which the teacher is told to do. | SA | A | U | D | SD |
| 3. | A good teacher should not do anything that may jeopardize the interests of the teacher's students regardless of who gives the directive or what the rule states. | SA | A | U | D | SD |
| 4. | Teachers should try to live up to what they think are the standards of the profession even if the administration or the community does not seem to respect them. | SA | A | U | D | SD |
| 5. | In view of the teacher shortage, it should be permissible to hire teachers with letters of authority. | SA | A | U | D | SD |

- | | | | | | | |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---|---|---|----|
| 6. | A teacher should try to put the standards and ideals of good teaching into practice even if the rules or procedures of the school discourage it. | SA | A | U | D | SD |
| 7. | Teachers should subscribe to and read diligently the standard professional journals. | SA | A | U | D | SD |
| 8. | A teacher should be an active member of at least one specialist council. | SA | A | U | D | SD |
| 9. | A teacher should attend all local association meetings. | SA | A | U | D | SD |
| 10. | A teacher should consistently practice ideas of the best educational practices even though the administration prefers other views. | SA | A | U | D | SD |
| 11. | The major skill which a teacher should develop is an acquaintance with the subject matter. | SA | A | U | D | SD |
| 12. | Teachers should be evaluated primarily on the basis of their knowledge of the subject that they teach and on the basis of their ability to communicate it. | SA | A | U | D | SD |
| 13. | Schools should hire no one to teach unless the person holds at least a bachelor's degree in education. | SA | A | U | D | SD |
| 14. | One primary criterion of a good school should be the degree of respect that it commands from other teachers around the province. | SA | A | U | D | SD |
| 15. | Teachers should be able to make their own decisions about problems that come in the classroom. | SA | A | U | D | SD |
| 16. | The ultimate authority over the major educational decisions should be exercised by qualified teachers. | SA | A | U | D | SD |

B. Teacher-Principal Interaction

The following is a list of statements that may be used to describe interaction between your principal and his staff. Each statement describes a special kind of behavior, but does not ask you to judge whether the behavior is desirable or undesirable. It simply asks you to describe, as accurately as you can, the behavior of your principal.

There are five possible answers to each statement. They are:

Always True (AT)

Seldom True (ST)

Occasionally True (OCT)

Often True (OFT)

Never True (NT)

For each statement, circle the answer which you feel comes closest to describing the behavior of your principal.

- | | | | | | |
|-------------------------------------------------------------------------------------------------------------------------|----|-----|-----|----|----|
| 1. The principal gives advice to teachers on their classroom work only when they request it. | AT | OFT | OCT | ST | NT |
| 2. The principal closely supervises the work of teachers. | AT | OFT | OCT | ST | NT |
| 3. The principal is careful not to upset staff members. | AT | OFT | OCT | ST | NT |
| 4. The principal insistently demands participation in school activities by all staff members. | AT | OFT | OCT | ST | NT |
| 5. Staff members can reject the advice of the principal regarding their classroom work without gaining his disapproval. | AT | OFT | OCT | ST | NT |
| 6. The principal is easy to work with. | AT | OFT | OCT | ST | NT |

C. Supervisory Practices

All questions in this section refer to practices followed throughout the 1965-66 school year.

School Code No. _____

In staff meetings, what importance, in terms of time and emphasis, would you estimate is attached to the discussion of matters directly related to the improvement of teaching? (discussing classroom problems raised by teachers, new methods and curricula).

- _____ (1) All important.
- _____ (2) Of major importance.
- _____ (3) Quite important.
- _____ (4) Somewhat important.
- _____ (5) Of slight importance.
- _____ (6) Unimportant.

In your estimation, what proportion of matters discussed at staff meetings is initiated by staff members?

- _____ (1) More than 80 %.
- _____ (2) 60 % to 80 %.
- _____ (3) 40 % to 60 %.
- _____ (4) 20 % to 40 %.
- _____ (5) Less than 20 %.
- _____ (6) None.

How many staff committees have been appointed in your school to study problems relating to teaching or curricula?

- _____ (1) Five or more committees.
- _____ (2) Four.
- _____ (3) Three.
- _____ (4) Two.
- _____ (5) One.
- _____ (6) None.

Since school opened last fall, how many visits has your principal made to your classroom for the particular purpose of observing you at work with your class? (Please check one.)

- _____ (1) Five or more times.
- _____ (2) Four times.
- _____ (3) Three times.
- _____ (4) Twice.
- _____ (5) Once.
- _____ (6) Not at all.

What was the average length of the visit(s)?

- _____ (1) Less than five minutes.
- _____ (2) 5 to 10 minutes.
- _____ (3) 10 to 15 minutes.
- _____ (4) 15 to 30 minutes.
- _____ (5) Over 30 minutes.
- _____ (6) Not applicable, no visit.

With respect to the visit(s) in general, what part did the principal take in classroom activities?

- _____ (1) None, he tried to be as inconspicuous as possible throughout.
- _____ (2) He made one or two brief remarks (upon entering and/or leaving).
- _____ (3) He participated briefly in some of the class discussions.
- _____ (4) He played a fair part in some of the activities of the class.
- _____ (5) He played a prominent role in the activities of the class.
- _____ (6) Not applicable, no visit.

Have you, at your principal's request, gone to the principal's office to discuss teaching matters with him?

- _____ (1) Seven or more times since school opened last fall.
- _____ (2) Five or six times.
- _____ (3) Three or four times.
- _____ (4) Twice.
- _____ (5) Once.
- _____ (6) Not at all.

Do you feel that teachers have a share in making decisions regarding the operation of the school?

- _____ (1) At all times.
- _____ (2) At most times.
- _____ (3) To a large extent.
- _____ (4) To a fair extent.
- _____ (5) They have a minor share.
- _____ (6) They have no real part in making decisions.

The principal prescribes teaching methods,

- _____ (1) For all our work.
- _____ (2) For most of our work.
- _____ (3) In certain important areas.
- _____ (4) Sometimes.
- _____ (5) Rarely.
- _____ (6) Never.

On an average, the principal interrupts lessons by using the Public Address System,

- _____ (1) Never.
- _____ (2) Once a month.
- _____ (3) Once a week.
- _____ (4) Several times a week.
- _____ (5) Once a day.
- _____ (6) Several times a day.
- _____ (7) Not applicable - no Public Address System.

Do you feel that your principal applies pressure to get teachers to work harder?

- _____ (1) Yes, very much so.
- _____ (2) To a considerable extent.
- _____ (3) To a fair extent.
- _____ (4) Occasionally.
- _____ (5) Rarely.
- _____ (6) I am not conscious of any pressure being applied.

D. Some Information About You and Your School

How many years of training are you credited with for salary purposes? (Please drop fractional years).

- _____ (1) 1 year.
- _____ (2) 2 years.
- _____ (3) 3 years.
- _____ (4) 4 years.
- _____ (5) 5 years.
- _____ (6) 6 years.

Compared with other schools known to you, how good is the total job your school does in educating the students who come to it? (Check one).

- _____ (1) Outstanding.
- _____ (2) Very good.
- _____ (3) Slightly above average.
- _____ (4) Slightly below average.
- _____ (5) Poor.
- _____ (6) Very poor.

How well satisfied are you with all aspects of your teaching situation in your present school? (Check one).

- _____ (1) Enthusiastic.
- _____ (2) Satisfied.
- _____ (3) Fairly well satisfied.
- _____ (4) Somewhat dissatisfied.
- _____ (5) Dissatisfied.
- _____ (6) Very dissatisfied.

How effective do you consider your principal to be in performing all the various functions which he should perform? (This information will be regarded as strictly confidential and is to be used solely for analysis of school climate in relation to the aims of the study).

- _____ (1) Outstanding.
- _____ (2) Very good.
- _____ (3) Slightly above average.
- _____ (4) Slightly below average.
- _____ (5) Poor.
- _____ (6) Very poor.

APPENDIX C

SUPERVISORY PRACTICES AND TEACHER ROLE ATTITUDES

A survey conducted under the guidance of the Department of Educational Administration, University of Alberta, Edmonton.

I would be grateful if you would assist a research project by rating on effectiveness those of the following schools which are well known to you. The ratings are required for a study which is applying to schools a theoretical model concerning supervisory behavior developed in connection with other occupations. Effectiveness ratings are necessary to test the validity of the model for schools. Several school system officers are being asked to rate each school and the mean ratings for the schools will be used as the criterion in the study. The information will be used for no other purpose and considerable care is being taken to ensure security in transmitting the ratings from the raters to the anonymity of the computer cards.

The theoretical model and the instruments being used in the study have previously been used in connection with an objective measure of the product achieved by the joint efforts of task groups -- for example, scores of basketball teams, profits of small companies, achievement scores of aircraft bombing crews. In order that the model may be given a fair trial in schools you are asked to make an estimate of the total output of principal and staff as a team. This is the nearest possible approach to a "score" of each school in meeting the educational needs of its students. Of course, the educational product is a far more complex outcome than a score, but it is felt that the consensus of experienced judges will provide a reasonably reliable index for comparing schools in order to test the validity of the model for schools.

Please rate each of the following schools on effectiveness. Each school has been allocated a code number and a copy of the key has been supplied to the Board. You will need to have the key with you at the time you are recording your ratings. Indicate your ratings by placing a tick against one of six possible ratings for each school.

Thank you for your assistance.

Vincent McNamara

School Code Number			School Code Number		
1.	_____	(1) Outstanding	32.	_____	(1) Outstanding
	_____	(2) Very Good		_____	(2) Very Good
	_____	(3) Slightly above average		_____	(3) Slightly above average
	_____	(4) Slightly below average		_____	(4) Slightly below average
	_____	(5) Poor		_____	(5) Poor
	_____	(6) Very Poor		_____	(6) Very Poor

The original questionnaire consisted of thirty-two scales of this type.

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